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AIR FORCE SPECIAL OPERATIONS COMMAND *1 MARCH 1999*

Flying Operations

AIRCREW LIFE SUPPORT (ALS) PROGRAM

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This instruction implements AFPD 11-3, *Life Support*; AFI 11-301, *Aircrew Life Support Program*; and AFI 36-2209, *Survival and Code Of Conduct Training*. Unless otherwise noted, this instruction also applies to all AFSOC-gained Air National Guard (ANG) units when published in ANGIND 2, and AFSOC-gained Air Force Reserve (AFRC) units. Prior to implementation, all units operating instructions, supplements, and instructor guides to AFSOCI 11-301 will be coordinated and approved by HQ AFSOC/DOTL. The use of a name of any specific manufacturer, commercial product, commodity, or service in this publication does not imply endorsement by the Air Force.

SUMMARY OF REVISIONS

This instruction establishes and defines life support programs formerly in AFSOCR 55-15, *Aircrew Life Support Program.* It clarifies responsibilities, defines general equipment maintenance and inspections, standardizes equipment control procedures, establishes security procedures, and prescribes minimum equipment requirements and training for all AFSOC life support sections, aircrews, and passengers flying in aircraft assigned or attached to this command.

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Chapter 1

LIFE SUPPORT PROGRAM

1.1. General. This instruction establishes minimum program requirements and outlines fundamentals, administrative and managerial requirements for all AFSOC life support organizations and Special Tactics Squadrons (STS).

1.1.1. Organizations must comply with the maintenance requirements for aircrew life support/survival equipment established in this instruction and applicable Air Force technical orders.

1.1.2. Training listed is the minimum required. Unit commanders will direct additional training for special mission requirements and to upgrade marginal performance.

1.1.3. Operating procedures will not be modified or waived unless approved by HQ AFSOC/DOTL.

1.2. Supplements. AFSOC units will supplement this instruction. Supplements should address missions peculiar for peacetime and wartime contingencies. Submit proposed supplements to HQ AFSOC/DOTL for approval prior to publication. After publication, send two copies of each supplement to HQ AFSOC/DOTL. AFSOC gained ANG and AFRC units will submit their proposed supplements through command channels to ANG/DOOS or HQ AFRC/DOTSL.

1.3. Terms and Abbreviations. For the purpose of this regulation, the following definitions apply:

1.3.1. ACCA. Aircrew contamination control area.

1.3.2. Aircrew Member. Any person, rated or non-rated required on the aircraft to accomplish the mission.

1.3.3. Passenger. Any person carried on an aircraft that is not listed as an aircrew member on the flight orders.

1.3.4. Formal Training. Survival training requirements are contained in AFCAT 36-2223, *USAF Formal Training Catalog*. Completion of USAF recognized survival training courses is a one time requirement for AFSOC aircrews.

1.3.5. Continuation Training. Training conducted at the unit level by AFSOC personnel IAW this instruction.

1.3.6. Overwater Flights. Any flight over water that exceeds the power off gliding distance from land.

1.3.7. Arctic Flight. Any flight conducted above the 50th parallel of north latitude from

1 October through 15 April.

1.3.8. Antarctic Flight. Any flight conducted below the 56th parallel of south latitude.

1.3.9. Desolate Terrain Flight. Any flight conducted over desert, jungle, or other uninhabited areas (excluding the CONUS) that exceeds one hour.

1.3.10. Life Support Equipment. In this regulation, the term "life support equipment" (LSE) encompasses life support, survival, and aircrew chemical defense equipment.

1.4. Communications.

1.4.1. All subordinate units will ensure life support matters, including requests for waivers, are channeled through their wing life support superintendent.

1.4.2. Direct communication with Air Logistics Centers (ALC), Life System Program Office (SPO), Depots, or other MAJCOM life support branches is not authorized without prior approval and coordination with HQ AFSOC/DOTL. If immediate contact is required in an emergency situation, advise HQ AFSOC/DOTL as soon as possible.

NOTE: Submit emergency AFTO Form 22, **Technical Order System Publication, Improvement Report and Reply**, and **Product Quality Deficiency Reports (PQDR)** IAW T.O. 00-5-1 and 00-35D-54.

1.4.2.1. Do not request waivers by telephone. Use letter or message format to request waivers depending on urgency. You may request clarification of directives and T.O. by telephone.

1.4.3. Messages. Keep messages to a minimum. When sending messages requiring an action by higher headquarters, provide information copies to all command agencies involved. Units will ensure equivalent local coordination on messages prior to transmission when responding to coordinated messages. Send information copies of all life support related PQDRs to HQ AFSOC/DOTL. ANG and AFRC units will send information copies through their respective chain of command.

1.4.4. Written. Use written communications to explain actions or request assistance from a higher echelon. Forward them to the next higher headquarters for action and do not bypass channels.

1.4.5. E-Mail Procedures: Units are encouraged to use E-mail to facilitate correspondence with HQ AFSOC/DOTL. Use E-mail when an interim response is needed or to answer a HQ tasking not requiring a formal response.

Chapter 2

PROGRAM ADMINISTRATION

2.1. General. This chapter provides guidance to assist the ALS superintendent/NCOIC in maintaining publications and directives pertinent to the ALS section.

2.2. Administration/Operating Instructions (OI). The group superintendent serves as the focal point for all group life support administrative actions. Unit noncommissioned officer in charge (NCOIC) is responsible for preparing and maintaining correspondence and local directives. OIs will be approved and signed by unit commander or designate. OIs should address issues to meet local mission requirements, specifically; response to emergency action (recall), radio operation, vehicle control and use, fire protection, explosive and ground safety, security standards and practices, each functional area, and TO familiarization. Review OIs annually or when approving official changes. Send unit OIs to the group superintendent for coordination and review.

2.3. Publications/Technical Order Familiarization. Establish a publications and T.O. familiarization program to ensure prompt dissemination of task-essential correspondence. This program should also include message traffic, inspector general cross-feed, publications, etc.

2.4. Technical Orders. A recommended technical order list is at attachment 1. The list is for use as a reference guide only and is not all-inclusive. The list will help you determine your requirements and is not a mandatory requirement list. Life Support will maintain specific technical orders for items authorized within the unit. Any deviation from the T.O.s must be approved in writing by the OPR and must be on file in the life support office. HQ AFSOC/DOTL will determine when optional procedures listed in T.O.s are mandatory within AFSOC via letter or official message.

2.4.1. Proposed changes to Air Force T.O.s (AFTO Forms 22), **Deficiency Reports** (DR), and suggestions (AF Forms 1000, **Suggestion**) affecting LSE should be sent to HQ AFSOC/DOTL (info copy of the DR) according to T.O. 00-5-1 and AFI 38-401, *Instruction for the Suggestion Program.* Group life support superintendents are functional offices of primary responsibility (OPR) on all related proposed T.O. changes and will establish procedures within the group to assign improvement report numbers. As the functional experts, superintendents are responsible for reviewing and processing wing-initiated AFTO Forms 22 and DRs dealing with life support related issues. Additionally, their responsibilities include coordination between life support and survival equipment supervisors when applicable. Life support superintendents will also perform wing evaluations of related AF Forms 1000.

2.4.1.1. Each group life support office will establish TODO responsibilities and ensure each life support shop maintains a current file of applicable technical publications.

2.4.1.2. When an operational safety supplement to a T.O. or TCTO is filed, enter a reference to the supplement opposite each affected paragraph. Maintain only regulations, manuals, etc. pertinent to life support management and associated operations.

2.4.1.3. The NCOIC will ensure technical orders required to operate a self-sustaining ALS facility are included in their mobility package.

2.5. Self-Assessment (SA) Program. The SA program is established for the purpose of reviewing key processes and provides an overall objective assessment of the life support program. Superintendents and NCOICs conduct SA to evaluate all aspects of the life support program every six months. Wing/Group superintendents are encouraged to develop SA checklists to aid units in objectively and thoroughly evaluating their programs. The written report should outline quality trends (positive and negative), strengths, problem areas and solutions, LSE quality, customer satisfaction, internal and external agency support, personnel qualifications, publications and T.O. familiarization, command policy implementation, etc. The Wing or Group SA will include visits to all sections within the unit and keep the operations group commander informed of unit health by forwarding a copy of the SA report. Visits by outside agencies do not take the place of unit SA responsibilities.

2.5.1. Site visits conducted by the HQ AFSOC/DOTL staff will use the SA approach and reporting. The purpose of the site visit is to promote an exchange of information and to assess established policy and procedures.

2.5.1.1. In preparation for these visits, units should prepare a folder containing the last unit SA, supplements to this instruction, metrics, flow charts, and a list of recent awards and recognition (individual and unit).

2.5.2. The life support Quality Assurance (QA) program is designed to measure the effectiveness of life support products and services and provide a means to achieve a statistical analysis and continuous improvement of the overall life support program. Superintendents are encouraged to perform no-notice spot checks to verify LSE serviceability (paragraph 3.4.3.14.) as part of the Quality Assurance program.

2.5.2.1. Squadrons will establish a QA program to detect trends or deficiencies in LSE maintenance, training, service, etc. Supervisors or quality assurance monitors will ensure a minimum of 10 percent of equipment inspected each month receives a quality assurance check, as well as 100 percent of equipment returned from outside agencies (parachutes, LPUs, etc.).

2.5.2.2. Each wing will develop a QA program that objectively reviews a percentage sampling of equipment maintenance and inspections, outside agency support, aircrew and technician training, etc. Annotate discrepancies on AF Form 2419, **Routing and Review of Quality Control Reports,** or equivalent. Use statistical analysis to establish a baseline against which to monitor positive and negative trends. Utilize surveys and task evaluations to determine customer support requirements and training needs. Once identified, the group superintendent should form a QA improvement team to analyze data and recommend actions to improve processes. When issues are identified dealing with cross-functional areas (survival equipment, etc.), a copy of AF Form 2419 will be sent as appropriate.

2.6. Aircrew Protection Working Group (APWG). The APWG is designed to evaluate potential problem areas and take courses of action on associated problems and manage the introduction of

new or modified LSE. An APWG meeting may be convened at any level and may task appropriate agencies to correct deficiencies affecting the life support program. Meetings should be conducted at least semi-annually.

2.6.1. APWG membership should consist of, but not be limited to LSOs, life support superintendent, flight safety, flight medicine, survival equipment, as well as applicable support agencies.

2.6.2. The wing LSO or life support superintendent will chair the meeting. Minutes should reflect the problem, solution, and action or suspense follow-up. If required, the minutes may be sent to appropriate levels for final resolution, and send a copy to AFSOC/DOTL.

Chapter 3

LIFE SUPPORT PROGRAM RESPONSIBILITIES

3.1. General. This chapter outlines core management requirements and responsibilities for administering AFSOC life support programs.

3.2. Organization. Life support is a staff function of the DCS/Operations Training at HQ AFSOC, and of comparable staff agencies in AFSOC groups and squadrons. HQ AFSOC/DOTL is responsible for the overall management of life support operations in accordance with AFPD 11-3 and AFI 11-301.

3.3. AFSOC Life Support Mission. The mission of the AFSOC life support program is to maintain mission-ready aircraft-installed life support equipment (LSE) and provide AFSOC aircrews with fail-proof LSE and realistic hands-on survival continuation training.

3.4. Responsibilities. Establish a management program at all levels of AFSOC life support, consisting of but not limited to: equipment maintenance, aircrew training, contingency operations publications and T.O. familiarization, technician training, self assessment, and quality assurance. AFSOC life support personnel training requirements are defined in table 3.1.

3.4.1. HQ AFSOC/DOTL provides oversight of command life support requirements as outlined in AFI 11-301. Specific responsibilities are as follows:

3.4.1.1. Provide regularly updated command guidance for the use, care, control, and safeguarding of life support equipment.

3.4.1.2. Act as focal point for coordination between AFSOC, and other MAJCOMs, and logistics centers concerning operational life support matters.

3.4.1.3. Conduct a command-wide life support workshop at least every 18 months.

3.4.1.4. Conduct periodic site visits to AFSOC units at least every 12 months (ANG and AFRC if requested).

3.4.1.5. SERE Training Instructors (J1T0X1). Command Life Support Functional Manager provides oversight and functional management for the Survival, Evasion, Resistance, and Escape (SERE) Instructor career field. The senior SERE Instructor within the command will serve as the career field manager. AFSOC SERE personnel training requirements are defined in Table 3.2. Specific duties and responsibilities will include the following:

3.4.1.5.1. Augment command staff as required. To include; staff assistance visits, Operational Readiness Inspections, and SERE training issues requiring command coordination.

3.4.1.5.2. Serve as the focal point and ensure that unit level Code of Conduct Continuation Training (CCCT) programs are in compliance with AFI 36-2209. All unit-training programs should be a collective effort of the organization's life support, intelligence, and SERE training personnel.

3.4.2. Group commanders will assign a group LSO, senior NCO superintendent, and an aircrew life support trainer to the operational support squadron (OSS). LSOs must be rated and currently flying in the unit assigned aircraft.

3.4.3. LSO and Superintendent Responsibilities. The group life support program is the responsibility of the OSS LSO and superintendent. This office is part of the group's management staff and provides functional oversight of the unit life support shops to ensure life support programs are providing quality LSE and training to maximize aircrew safety. A senior noncommissioned officer (SNCO) (AFSC 1T1X1) will be assigned to serve as the ALS superintendent at each wing or group. Responsibilities include but are not limited to:

3.4.3.1. Implementing group life support policy, procedures and ensuring life support personnel qualifications, equipment, and manning meet mission requirements. The superintendent is the focal point for life support information distribution from HQ AFSOC/DOTL.

3.4.3.2. Performing a group-wide program self-assessment (SA) every six months and documenting according to paragraph 2.5. Utilize AFSOC or locally developed SA checklist and evaluate all aspects of management, equipment, and training.

3.4.3.3. Developing and publishing a group supplement to this instruction. Ensure operating instructions (OI) are developed and maintained to ensure standardization and timely accomplishment of life support duties. Ensure OIs are coordinated with each squadron and the OG/CC. As a minimum, OIs will address OG level life support responsibilities delegated to subordinate units, enlisted specialty training (Career Field Education and Training Plan (CFETP), master Job Qualification Standard (JQS), core responsibilities), aircrew continuation training and safety, and quality assurance. Additional OIs will address supply and cost center management, aircraft mishap investigation, aircraft LSE configuration and any other instruction required to accomplish oversight duties and to maximize aircrew safety.

3.4.3.4. Establishing communications among operations group and operational support agencies to ensure appropriate issues are elevated and addressed. The APWG is one avenue to address these issues.

3.4.3.5. Establish a tool control program to include in-shop as well as flight line tool kits. Outline procedures in the group supplement to this instruction.

3.4.3.6. Evaluating or assessing life support combat capability during local exercises (augment base exercise evaluation team). The evaluation or assessment will specifically address equipment combat configuration, facilities at deployed locations, ACCA processing, aircrew chemical defense equipment (ACDE) and donning or doffing proficiency, emergency procedures/buddy care, ACD site selection and set-up, equipment decontamination, and emergency evacuation and equipment dispersal procedures.

3.4.3.7. Directing, evaluating, and monitoring life support continuation training programs and certifying those personnel responsible for providing life support training. The LSO or superintendent will randomly attend and review training sessions and critique for the following: course presentation and instructor knowledge, condition and use of training aids, student involvement and hands-on aircrew demonstrated proficiency training. The superintendent will review and approve use of all life support lesson plans and training aids.

3.4.3.8. Ensuring unit life support activities budget for required equipment and supplies. Units will coordinate budget execution requests (BER) for unfunded LSE items through the superintendent to verify sufficient quantities and valid requirements.

3.4.3.9. Ensuring availability of sufficient LSE to support mission requirements according to Allowance Standards (AS) 450, 016, and AFI 23-110 V2 Part 13, *Standard Base Supply Customer Procedures*. Ensure units submit supply difficulty letters with precise mission impact statements to Base Supply Stock Control Element when supply status fails to meet mission requirements. Coordinate with Stock Control Elements to ensure a message is transmitted to the source of supply with an information copy to HQ AFSOC/LGSW requesting improved status. Provide AFSOC/DOTL with national stock number (NSN), off-base requisition number, priority, and quantity needed after local follow-up actions fail to meet mission requirements.

3.4.3.10. Initiating and evaluating AF Forms 1000, AFTO Forms 22, and life support systems equipment deficiency reports according to directives and technical orders before sending them to higher headquarters.

3.4.3.11. Preparing and submitting operational requirements to higher headquarters for evaluation and action according to DODI 5000.2 AF/SI, *Defense Acquisition Management Documentation and Reports*.

3.4.3.12. Will ensure that all life support equipment related Commercial-Off-the-Shelf (COTS), Non-developmental Items (NDI), and life support equipment modifications are evaluated and approved by HQ AFSOC/DOTL prior to any operational use.

3.4.3.13. Assist the flight surgeon in completing AF Form 711GA, **Life Sciences Report of an Individual Involved in an AF Flight/Flight Related Mishap**. LSOs and NCOs who have attended the Air Force Life Science Accident Investigation course may perform these duties.

3.4.3.14. Perform monthly spot checks on LSE quality. Remove or correct any unsafe LSE, document checks on AF Form 2420 (or local equivalent) and retain for trend analysis. Provide a copy to the unit.

3.4.3.15. Conducting test-and-evaluation (T&E) of LSE as directed by higher headquarters.

3.4.4. Squadron Commanders. Appoint a rated LSO who has completed requirements according to AFI 11-301 and Table 3.1.

3.4.4.1. Commanders will ensure crew members return all previously signed out equipment to the life support facility at the end of each flying day or upon returning from alert, temporary duty (TDY), or deployment. Also, commanders will establish procedures to:

3.4.4.2. Ensure aircrews' sign the AFTO Form 46, **Pre-positioned Life Support Equipment,** indicating aircraft inventories are complete and equipment discrepancies are properly documented.

3.4.4.3. Ensure aircrews who are arriving or departing from permanent change of station (PCS) process through the life support section to initiate or terminate required service.

3.4.4.4. Ensure assigned crewmember currency in all aspects of life support training and use of applicable LSE.

3.4.4.5. Ensure crew members who are deployable to threat environments possess all required equipment.

3.4.4.6. Ensure life support personnel (AFSC 1T1X1) are not assigned additional duties, details, or assignments (e.g. first sergeant, mobility NCO, shelter monitor, etc.) that interfere with their primary life support duties. During times of heightened readiness and generation exercises, life support personnel must be available to perform mission essential duties (e.g. CCA operations, aircrew equipment decon, and aircraft equipment up and down loads etc.).

3.4.5. NCOIC responsibilities:

3.4.5.1. Ensure qualified life support technicians are available and trained according to AFI 36-2201, *Developing, Conducting, and Managing Military Training,* (formerly AFR 50-23).

3.4.5.2. Ensure LSE is routed through the appropriate maintenance activity for inspections or repair.

3.4.5.3. Ensure proper care, use, inspection, and maintenance of LSE in accordance with applicable T.O.s and directives.

3.4.5.4. Maintain accountability of LSE transactions.

3.4.5.5. Maintain a current file of applicable publications, directives, and T.O.s pertaining to issue, inspection, maintenance, and use of assigned LSE.

3.4.5.6. Maintain a tool control program to include in-shop as well as flight line tool kits as outlined in group supplements to this instruction.

3.4.5.7. Requisition, store, inspect, maintain, and configure aircraft with required LSE. Maintain a file of completed AFTO Forms 46 by aircraft tail number for all assigned aircraft. Copies should be purged each quarter or when no longer required.

3.4.6. Aircraft Commanders or designated representatives::

3.4.6.1. Inventory and assume responsibility (by signing AFTO Form 46) for LSE while in command of the aircraft and throughout the entire mission. Inventories should be conducted by reviewing the AFTO Form 46 to ensure all required LSE is onboard and installed equipment matches mission requirements (e.g. appropriate types and numbers of life preservers, flotation devices and parachutes.

3.4.6.2. AFTO Form 46 and AFTO 781, **AFORM Aircrew/Mission Flight Data Document,** entries will be made for missing equipment and en-route reconfigurations. Entries should include as much information as possible, e.g. station where discovered, names, agencies and persons contacted. Reports of survey should be initiated as required by AFM 23-220, *Reports of Survey for Air Force Property.*

3.4.7. Aircrew Members:

3.4.7.1. Ensure life support equipment is made available to the life support personnel for required inspections and maintenance.

3.4.7.2. Accomplish preflight inspection of all life support equipment as required by the applicable technical data.

3.4.7.3. Make sure life support equipment is properly fitted and maintained in serviceable condition (cleaning and replacement of flight clothing is the responsibility of the individual crewmember).

3.4.7.4. Either wear or carry, as applicable, the prescribed life support equipment and safeguard it when the aircraft is away from home station. Return all previously signed out equipment to the life support facility according to paragraph 3.4.4.1. of this instruction.

3.4.7.5. Ensure all crewmembers preflight their night vision goggles (NVG) IAW command guidance.

3.4.7.6. Do not perform any modifications to life support equipment without prior coordination through life support channels.

3.4.8. Intermediate Level Maintenance Activities:

3.4.8.1. Survival equipment shops will inspect, repair, and pack personnel parachutes, life rafts, life preservers, and anti-exposure suits. They will have the capability to fix flight clothing and organizational equipment.

3.4.8.2. Process life raft carbon dioxide cylinders to depot for hydrostatic testing and/or obtain replacement cylinders from supply as required. Ensure capability to replace or recharge CO2 cylinders at deployed locations.

3.4.8.3. Fund and provide replacement parts and components for life rafts, life preservers, parachutes, etc. This includes replacement carbon dioxide cylinders, valves, cells, and parachute delay cartridges.

3.4.9. Base Medical Supply. Base medical supply will inspect and maintain first aid kits and replace unserviceable components as necessary IAW TO 00-35A-39, *Issue, Use, and Maintenance of Medical Kits*. Will provide medical support for medical related products (i.e. alcohol, contact lens, cleaning solution, etc.).

3.4.10. Life Support Facilities and Hygiene. Facilities must be maintained IAW applicable AFOSH standards, T.O. 15X-1-1, *Oxygen Equipment,* and AFI 91-201, *Explosive Safety Standards,* (formerly AFR 127-100). The sensitivity of LSE requires environmental and climatic control.

3.4.10.1. Environmental controls are necessary to comply with the storage requirements for life support equipment. The desired temperature range is 60 to 75 degrees Fahrenheit with 50 percent relative humidity and filtered air to reduce dust contamination. Do not store life support equipment in direct sunlight and make sure the storage arrangement provides for maximum ventilation and is IAW applicable T.O.s.

3.4.10.2. Store equipment neatly and separated into areas to prevent co-mingling of serviceable, repairable, and unserviceable equipment categories. Provisions will be made to store shelf-stock components in such a way as to protect from dust or impurities when not assigned for use (i.e. breathing hoses, oxygen masks, valves, connectors, etc.).

3.4.10.3. Ensure sufficient work and storage areas are available for inspections and storage. When necessary, pad and cover work benches and storage bins with material to provide smooth surfaces and edges.

3.4.10.4. The following infection control guidelines will be followed: Personnel may wear lint-free smocks while performing duties in the oxygen section. Smocks will not be worn outside the section and will be cleaned using in-house washers or the base commercial laundry. Use of nitrile rubber gloves is required when working on oxygen masks. Wash hands thoroughly immediately after glove removal. Follow general guidelines for sterilization, disinfecting, housekeeping, and waste disposal. Questions concerning disposal for hazardous material will be directed to bioenvironmental engineers. Post a copy of safety guidelines in equipment maintenance and post-flight areas.

3.4.10.5. A flight surgeon or designated representative will inspect the oxygen section at least once every 90 days. Maintain a record of the inspections.

3.5. Training. The NCOIC will evaluate personnel qualifications to ensure required training is provided. Establish policies to ensure as many personnel as possible are trained, qualified, and certified to operate special equipment. Do not allow personnel to work unsupervised on tasks for which they are not certified. Record qualification evaluation and other pertinent training information on individual training documents. Review task qualifications of assigned personnel to provide additional training as necessary when new, revised, or changed T.O.s are received, or equipment modified.

3.5.1. Special Task Certification and Recurring Training. Certain tasks peculiar to life support operations require recurring training or evaluation. Document this training on AF Form 1098, **Special Task Certification and Recurring Training,** IAW AFI 36-2201.

3.5.2. Chemical Defense Equipment training will be documented as four separate events: AERP system preflight/postflight, AERP system 180-day inspection, AERP system donning/doffing, and AERP system decontamination and processing procedures.
NOTE: The above training applies only to units which have Aircrew Chemical Defense Equipment (ACDE) for assigned aircrews and may be accomplished during annual aircrew chemical defense training.

3.5.3. Emergency Ground Egress Training. Training in emergency ground egress is a mandatory safety requirement for all aircrew life support personnel. Initial qualification emergency ground egress training will be administered to all newly assigned personnel prior to performing any tasks aboard unit aircraft. NCOICs are responsible to ensure all assigned personnel are egress trained.

3.5.4. Evaluation of Technical School Graduates. All supervisors will observe the job performance of technical school graduates to ensure they meet task proficiency levels specified in the approved Career Field Education and Training Plan (CFETP). Report training deficiencies on AF Form 1284, **Training Quality Report.** Questionnaires forwarded by AETC to supervisors of recent technical school graduates will be completed and returned. Provide HQ AFSOC/DOTL, with an information copy of each AF Form 1284.

3.6. Security. AFSOC life support shops require strict security. As a minimum life support shops are considered "limited access areas"; therefore, appropriate measures will be taken to control visitors and safeguard LSE.

3.7. Mishap Prevention. Safety is paramount. A mishap prevention program tailored to the needs of life support personnel will be administered using the applicable portions of AFI 91-202, *US Air Force Mishap Prevention Program,* (formerly AFR 127-2). The local wing or group safety staff should be contacted to ensure all shop hazards are addressed and procedures are established. As a minimum, local procedures should address explosive safety and wear of ear protection and jewelry when on the flight line or engaged in aircraft operations.

3.8. Automated Life Support Management Systems (ALSMS). ALSMS is a management tool for use by life support personnel. Units are authorized to use ALSMS or equivalent to best suit their needs. Units tracking equipment with the ALSMS program are not required to duplicate the data maintained in the computer on status boards, shop inspection cards, or forms.

3.8.1. Life support shops will maintain a master copy (tape or disk backup) of each applicable data file prior to deleting status boards or in-shop inspection cards.

3.8.2. Update information in each LSE master data file as necessary. A hard copy of each LSE master data file must be maintained.

3.8.3. Annotate computer-generated equipment inspection documents containing historical information in ink and retain until the next inspection is completed.

3.8.4. Units are authorized to use ALSMS-generated or equivalent inspection forms. Retain inspection cards and forms replaced by ALSMS for 12 months for historical purposes.

3.8.5. Continue to use and maintain inspection tags as required for survival kits, accessory kits, etc.

3.8.6. Submit ALSMS program problems on an AF Form 1775, **Software Problem Report** (SPR), and suggested enhancements on AF Form 1773, **Baseline Change Request** (BCR), to HQ AFSOC/DOTL.

TABLE 3.1. Life Support Personnel Training Requirements

COURSE DESCRIPTION	COURSE NUMBER	LIFE SUPT 3 LEVEL	LIFE SUPT 5 LEVEL	LIFE SUPT 7 LEVEL	LIFE SUPT 9 LEVEL	LIFE SUPT INSTRUCTOR	LSO
Aircrew Life Support Apprentice	J3ABRTIT31002	M	M	M	M	M	
Aircrew Life Support Craftsman	J3AAR1T171000			M	M		
Maintenance of Aircrew Night Vision Goggles	JA4ST1T151002	M	M	M	M	M	
Combat Survival Training	S-V80-A	M	M	M	M	M	M
Water Survival Training[1]	S-V86-A	M	M	M	M	M	M
Arctic Survival Training	S-V87-A	D	D	D	D	D	D
Airborne Parachutist Training[4]	L5AZA1T231001			D	D	D	
Academic Instructor School	A1A0S000L					D	
Life Support Instructor Course [3]	Y120006	D	D	D	D	D	
Aircrew Life Support Officer[5]	S-V8G-A						M
Life Science Equipment Investigation Course	S-V8G-C			D	M		
Operations Support Physiological Training [2]		D	D	D	D	M	D
Emergency Medical Technician[4]				D		D	D
Water Safety Instructor Training						M	M

Legend: M = Mandatory, D = Desirable

NOTES:

1. S-V90-A, Water Survival Training, Non-Parachutist, may be substituted for S-V86-A.
2. Physiological Refresher Training is required every 3 years for instructors.
3. Supervisors of personnel conducting unit aircrew life support continuation training programs are encouraged to attend course Y120006, Life Support Instructor Course.
4. Special Tactics LS personnel. Airborne Parachutist Training is desired (D) for 7 level.
5. The Life Support Officers Course is mandatory for crewmembers performing duty as a squadron or wing LSO.

TABLE 3.2. Sere Personnel Training Requirements

COURSE DESCRIPTION	COURSE NUMBER	SERE TRNG INSTRUCTOR JOURNEYMAN (5-LEVEL)	SERE TRNG INSTRUCTOR CRAFTSMAN (7-LEVEL)
SERE Training Instructor Craftsman [1]			M
Resistance Training Orientation Course [2]		M	M
Airborne Parachutist	L5AZA1T231001	M	M
Water Survival (Parachute)	S-V86-A	M	M
Water Survival (Non-Parachute)	S-V90-A	M	M
Artic Survival	S-V87-A	M	M
DOD High Risk Training		M	M
Military Freefall Parachutist	L5AZA1T231006	D	D
Physiological Training		M	M
Underwater Egress Training	S-V84-A	M	M
Emergency Medical Tech		D	D

Legend: M = Mandatory, D = Desirable

NOTES:

1. Excludes SERE Training Instructors with a 7-skill level.
2. Only pertains to those instructors who are RT qualified.

Chapter 4

LIFE SUPPORT AWARDS PROGRAM

4.1. General. Annual awards are designed to enhance the overall visibility and accomplishments of Life Support/SERE Training Instructor personnel and to recognize outstanding unit accomplishments. They also reward those who distinguished themselves through initiatives, actions of lasting impact, and value to the career fields and promote competition among individuals in overall performance, conduct, appearance, and contribution to unit mission accomplishment. Life Support and SERE Instructor personnel will only be considered and compete against nominees in their respective AFSCs. Further guidance is provided in AFI 36-2807, *HQ AF Plans and Operations Annual Awards Program*.

4.2. Frequency of Award. Each calendar year.

4.3. Personnel Award Criteria. To be considered for an award, all nominees must have at least six months in present assignment and be working there at the time of nomination. For those eligible on one year remote tours the time requirement is four months. The nominee must not have been on a control roster during the preceding calendar year; the last enlisted performance report (EPR) must be rated "outstanding"; and the nominee must have completed all appropriate levels of professional military education (PME) in-residence, by correspondence, or be presently enrolled. Do not submit copies of EPR's, photographs, or other material.

4.3.1. AFSOC Outstanding Life Support Officer of the Year Award. Individual must be an Air Force rated officer who is qualified and current in the primary aircraft of assignment and possess the L prefix to their AFSC IAW the prerequisites of AFMAN 36-2105, *Officer Classification.*

4.3.2. AFSOC Outstanding Life Support/SERE Training Instructor Senior NCO of the Year Award. Individual must be an Air Force senior NCO in grades E-7 or E-8 (date of rank (DOR) before 1 Sept of year considered for award) and possess a primary AFSC 1T1X1/1T0X1 (7- or 9-level).

4.3.3. AFSOC Outstanding Life Support/SERE Training Instructor NCO of the Year Award. Individual must be an NCO in grades E-4 (Sgt), E-5 or E-6 (DOR 1 Sept of year considered for award) and possess a primary AFSC 1T1X1/1T0X1 (5- or 7-level).

4.3.4. AFSOC Outstanding Life Support/SERE Training Instructor Airman of the year Award. Individual must be in grades of E-1 through E-4 (DOR before 1 Sept of year considered) Airman Basic through Senior Airman, and possess a primary AFSC 1T1X1/1T0X1 (3- or 5-level).

4.3.5. AFSOC Outstanding Life Support Unit of the Year Award. Each group may nominate one squadron life support program for the Unit of the Year Award.

4.4. Nominations. Each group may nominate one airman, one NCO, one senior NCO, and LSO for Life Support and SERE Instructor.

4.5. Package Preparation. Follow procedures below for proper submission.

4.5.1. Personnel Nominations. Label a 9x12 inch manila folder with nominee's name, grade, organization, and MAJCOM centered on the front of the manila folder. Nomination folders must contain an original and five (unstapled) copies of the nomination package, and include a disc with copies of the AF Form 1206, *Nomination for Award* and citation. The nomination package must include a letter of transmittal signed by the operations group commander (or equivalent), and attachments following AFI 36-2807.

4.5.1.1. Attachment 1 will be an AF Form 1206 to justify the award. The narrative should emphasize the nominee's contributions to the unit's mission accomplishment and any other noteworthy awards or recognition. The narrative will only cover the accomplishments from 1 January of the nomination year to 30 December. The narrative must be typewritten and cannot exceed one page.

4.5.1.2. Attachment 2 will be the proposed citation to accompany the award. It will be typewritten (use 10-pitch type) and double spaced with 1 inch margins, and a maximum length of 15 lines.

4.5.2. Unit Nomination Package. Label a 9x12 inch manila folder to identify the unit and base. Include a cover letter in nomination folders signed by the OG/CC, or equivalent, supporting this nomination with two attachments.

4.5.2.1. Attachment 1 is a narrative to justify the award. It should emphasize the unit’s contribution Force’s mission accomplishment. Prepare the nomination package using an AF Form 1206 similar to the individual award nominations. Unit award packages may not exceed two pages in length.

4.5.2.2. Attachment 2 is a listing of personnel accomplishments, deployments, exercises, and inspections during the nomination period.

4.6. Selection Procedures. Send nomination packages for receipt at HQ AFSOC not later than 15 January each year. A board of senior officers and/or chief master sergeants will be convened at HQ AFSOC to evaluate all nomination packages and make recommendations to the Commander, AFSOC who will make the final selection. Individual award winning packages will be sent for Air Force competition; therefore following the prescribed format is essential. A HQ USAF board selects winners in each category based solely on information contained in the nomination folders using the following elements:

4.6.1. Outstanding performance of duties and significant accomplishments or achievements in their functional area (50 points).

4.6.2. Acceptance of responsibility (15 points).

4.6.3. Bearing and behavior (10 points).

4.6.4. Self-improvement efforts (15 points).

4.6.5. Other accomplishments/awards (10 points).

4.7. Notification of Selection. After winners are selected, notification is made by message from the Commander, AFSOC. Winning packages will be sent to Air Force to compete in the Annual Air Force Outstanding Life Support and SERE Instructor Awards Program.

4.8. Presentations. Awards will be presented with an appropriate level of recognition at a time to be determined by HQ AFSOC/DO.

4.9. Disposition of Documentation. Dispose of papers allied to board proceedings, nomination packages, and other documentation according to AFMAN 37-139, *Records Disposition Schedule*, (formerly AFR 4-20, vol 2).

Chapter 5

SUPPLY PROCEDURES/RESOURCES MANAGEMENT

5.1. General. This chapter is designed to establish command guidance for coordinating equipment and supply-related procedures, not specifically addressed in other publications.

5.2. Equipment Authorizations:

5.2.1. Each life support shop will budget for and establish their own supply account as specified by AFPD 21-1/AFM 23-110, *Standard Base Supply Customers Procedures*. Commanders will appoint trained primary and alternate supply custodians. When appropriate, local contingency plans will include qualified life support technicians who will assume custodial responsibilities at deployed life support shops.

5.2.2. Use AS 016, 450, and 660, aircraft configuration publications, mission requirements and this instruction to determine the basis of equipment required. HQ AFSOC/LGMA has authorized an additional 10 per cent for special retention. To minimize aircraft downtime, some equipment is required to be designated as whole sets. Thus, you may exceed the 10 percent additional authorizations in order to maintain equipment as whole sets, but will not exceed the next whole set. Equipment not in service will be declared excess to AFSOC/DOTL immediately and will be redistributed or turned in as directed.

5.2.3. Each life support section maintains a unit-generated listing of accountable equipment. The list should include equipment listed on the custody account/custody receipt listing (CA/CRL) to include the following: nomenclature; NSN; number of aircraft assigned; number of aircrew assigned; unit crew ratio; quantity of spares; and total authorization for each equipment items from the authorized table of allowance.

5.2.4. AFSOC life rafts, both individual and multi-place, will be on the unit life support CA/CRL with all accountable survival/accessory components. This will not apply to contractor provided/maintained life rafts.

5.3. Equipment Control:

5.3.1. Following the final mission of the day or return to home station from TDYs, etc., life support personnel will perform a mission termination inventory (MTI) of aircraft-installed LSE for accountability and serviceability. This inventory will be accomplished as soon as possible after mission termination and prior to the next flight/mission. In the event equipment discrepancy or loss is discovered, proper corrective actions for off-station losses will include messages to the owning organization describing lost equipment, TDY duration, and route of off-station aircraft. Send an information copy of the message to HQ AFSOC/DOTL. Establish group procedures to notify applicable agencies (ref. AFMAN 23-110, Vol 2, Pt 13, formerly AFM 67-23) in the event of equipment loss, suspected abuse, pilferage, or mishandling.

5.3.2. To provide mission flexibility when aircraft are away from home station and to reduce excessive handling resulting in damage to LSE, pre-position equipment onboard to the maximum extent possible. Store pre-position aircraft LSE in A-3 bags (or equivalent) when possible. Remove this equipment from the aircraft only for recurring inspections or as required for aircraft maintenance.

5.3.3. Establish local procedures to document, control, and retrieve LSE required for temporary issue (ref. AFMAN 23-110).

5.3.4. Equipment exceeding day-to-day mission requirements, but required for contingencies, may be placed in "serviceable-storage". However, inspection and storage procedures for "stored equipment" established in applicable T.O.s and publications will be followed without deviation. If there is no inspection frequency in the applicable T.O., perform an annual inspection. Maintain all equipment in "ready for use and inspect prior to issue" status with all TCTOs and modifications complied with. Units should establish procedures to fit or issue equipment based on local mission commitments and time constraints.

5.3.5. Mobility Equipment. When required by mobility plan commitments, the ALS supervisor will ensure sufficient equipment/mission support kits, properly marked and packaged, are available. Inventory mobility kits annually and upon return from deployment for sufficient supply/equipment quantities and document on AFTO Form 338, **Survival Kit/Vest Inspection Record,** ALSMS generated form, or equivalent.

5.4. Identifying and Marking Equipment. Serial numbers (assigned serial numbers) of accountable items will be annotated on the appropriate AFTO Form. This record will expedite locating lost or missing items and may be used as supporting evidence in identifying equipment.

5.4.1. Units with a deployment commitment will ensure all life support equipment and inspection forms attached to equipment are sanitized of data pertaining to organization, unit of assignment, inspection activity, and location. Use a locally devised numbering or alphabetical tracking system. Tracking system procedures will be outlined in unit OIs.

5.4.2. All life support equipment excess to unit mission requirements will have all unit identification designations obliterated prior to turn-in.

5.4.3. Training equipment will be marked IAW applicable technical orders.

5.5. Transfer of Life Support Equipment:

5.5.1. During aircraft transfers or movement of LSE, communications between depot and modification agencies and gaining or losing unit is encouraged. In the unlikely event life support issues cannot be resolved at the unit level, HQ AFSOC/DOTL serves as the focal point for life support issues involving aircraft, TDYs, or depot inputs.

5.5.2. Units involved in aircraft transfers will transfer equipment according to Tables 6.1 and 6.2. Aircraft transfer equipment shortages will not be tolerated unless the losing and gaining units have

written authorization from HQ AFSOC/DOTL. AFSOC units swapping like aircraft and desiring to retain local LSE may do so provided it is on mutual agreement of both gaining and losing organizations and arrangements are coordinated to satisfy this instruction and ferrying aircrew mission needs.

5.5.3. Due to a lack of life support expertise at aircraft depot-level maintenance facilities, LSE maintenance accountability can be provided only by the organization owning the aircraft. Therefore, during aircraft ferry and depot deliveries, the "Aircraft Minimum Survival Kit/Depot Survival Kit" will be used as a means of providing minimum survival equipment needs. When aircrews are scheduled to return via commercial travel, the appropriate hazardous and pyrotechnic devices will be removed and the kit will be redesignated "Depot Survival Kit". Kit components are listed in Table 6.3 of this instruction.

NOTE: Depot input aircraft will have the minimum quantities of flotation equipment required to support onboard personnel. Equipment will remain at the depot facility during aircraft maintenance.

5.6. Time Change Requirements Forecast (AFTO Form 223). Superintendents will submit consolidated time-change forecasts according to T.O.s 00-20-9 and 00-20-9-1, MAJCOM option, directly to AFSOC/DOTL to arrive not later than 1 October.

5.6.1. Life support sections should use Core Automated Management System (CAMS) to input time change data, and document replacement of components during inspections. CAMS provides faster servicing of time change data and is the preferred method for reporting this data.

Chapter 6

MAINTENANCE AND INSPECTION REQUIREMENTS

6.1. General. Use this chapter and aircraft configuration manuals to determine minimum LSE to configure AFSOC aircraft. Maintain AFSOC LSE according to this directive, the AFSOC T.O. options list, applicable T.O.s, and AFI 11-206, *General Flight Rules*, (formerly AFR 60-16).

6.2. Responsibilities:

6.2.1. Commanders at all levels will ensure all crew members and passengers wear or have access to the appropriate equipment for the route of flight as prescribed in paragraph 6.1. Using and wearing LSE designed and tested through the 412A system is authorized. Commercially procured LSE items of any type are not authorized for use without prior approval by HQ AFSOC/DOTL.

6.2.2. Life Support:

6.2.2.1. Monitors all active and ongoing related modifications and TCTOs.

6.2.2.2. Stores, handles, services, and accounts for items that are part of the 412A life support system.

6.2.2.3. Ensures all LSE inspections remain current throughout scheduled mission duration.

6.2.2.4. Inspects and repacks survival vests, kits, inner and outer life raft accessory containers, and applicable components.

6.2.2.5. Life support is not responsible for the storage, handling, servicing, or accountability of items such as ground CWDE, thermos jugs, fire extinguishers, aircraft portable oxygen cylinders, parachutists oxygen assemblies, headsets, aircrew handguns, ammunition, holsters, web belts, pyrotechnic flare pistols, E&R kits, non-aircrew body armor, passenger service equipment, aircraft escape slides, stokes litters, laser designators, ground personnel NVDs, or other items not related to the 412A system.

NOTE: Some items may be handled by STS personnel who have had proper training according to technical data.

6.3. Aircraft-Installed LSE Procedures. As a minimum, units will maintain and install aircraft LSE specified in Tables 6.1 or 6.2. Ensure all aircraft installed LSE deployed TDY has a minimum of 21 days remaining on the inspection or cover the deployed period. In the event aircraft installed equipment inspections come due during off-station missions, it is permissible, in coordination with home station maintenance, to allow a one-time flight back to home station. The overhead equipment storage rack is essential to minimize damage to life support equipment. The storage rack is to be used exclusively for life support equipment storage when available.

TABLE 6.1. Minimum Fixed Wing Aircraft Life Support (LS) Equipment

MINIMUM REQUIRED EQUIPMENT	MC-130E	MC-130H	C-130	AC-130H	AC-130U	EC-130E	MC-130P	CASA 212
LIFE PRES, LPU-10/P, 2/P LIFE PRES, ADULT CHILD	30	30	60 NOTE 2	23	23	10	10	NOTE 1
LIFE RAFT, F-2B, 20 PERSON	3	4	4	2	2	2	2	
LIFE RAFT, LRU-1/P, 7 PERSON								NOTE 2
PASSENGER OXYGEN KIT (POK) OR EPOS	NOTE 3	NOTE 2	30 NOTE 2	NOTE 3	NOTE 3	NOTE 3	NOTE 3	
MBU-10/P OR SCOTT 358-1506V	7	5	4			6	5	
EMERGENCY ESCAPE BREATHING DEVICE (EEBD)	4	4	3	4	3	4	2	4
MASK, FIREFIGHTER, SMOKE	4	4	2	6	7	2	2	
PARACHUTE, BA-18 OR BA-22	11	8	9			NOTE 1	10	
PARACHUTE, C-12 OR CA12			NOTE 2	23	23			
RESTRAINT HARNESS PCU-17/P	5	5	3	2	2	2	5	2
SURVIVAL KIT, ML-4 OR MD-1	11	8	9	21	21	NOTE 1	10	NOTE 4
SEA RESCUE KIT MA-1 OR MA-2							NOTE 2	
SURVIVAL VEST, SRU-21/P	15	8	NOTE 2	21	21	NOTE 2	10	NOTE 1
EXPO. SUIT, CWU-16, 21, OR 74/P	15	8	9	21	21	10	8	NOTE 1
PROTECTIVE CLOTHING KIT			1			NOTE 2		

NOTES:

1. One per crew member.
2. As required.
3. See paragraph 6.7.4. of this instruction.
4. Survival kit requirements will be established by 16OSS/DOTL.

6.4. Aircrew Oxygen Masks:

6.4.1. Each aircrew member will possess an individually issued oxygen mask except for those who fly in aircraft that have pre-positioned oxygen masks or no oxygen system. Aircrew members flying high altitude airdrop missions must be individually fitted with an oxygen mask. Aircrew members requiring parachutes with emergency oxygen cylinders must have the three-prong bayonet on the oxygen mask hose with a CRU-8/P or CRU-60/P connector. Oxygen mask connectors, P/N 232-94/A, 266-370, or 266-360 may be used on all oxygen masks where a bailout bottle or high altitude capability is not required.

6.4.2. Fixed wing dedicated crew chiefs (DCC) will be issued and have in their possession a quick-don oxygen mask with suspension assembly.

6.4.3. Inspect and maintain all oxygen masks IAW applicable technical data. Maintain an AFTO Form 334, **Helmet and Oxygen Mask/Connector Inspection Data**, for each oxygen mask and connector. If ALSMS or equivalent is used, maintain an AFTO Form 334 only for historical data such as type, size, to whom issued, date of initial fit, and any TCTO or modification performed.

TABLE 6.2. Minimum Rotary Wing Aircraft Lift Support (LS) Equipment

MINIMUM REQUIRED EQUIPMENT	MH-53	MH-60	UH-1H
LIFE PRES, LPU-10/P, 2/P	NOTE 1	NOTE 1	NOTE 1
LIFE RAFT, F-2B, 20 PERSON	NOTES 2 & 4	NOTE 3	
LIFE RAFT, LRU-1/P, 7 PERSON, LRU-14/AP	NOTES 2 & 5	NOTES 2 & 4	NOTE 2
SURVIVAL VEST, SARVIP	NOTE 1	NOTE 1	NOTE 1
HELICOPTER EMER. ESCAPE DEVICE	NOTE 1 & 2	NOTE 1 & 2	NOTE 1
EXPO. SUIT, MAC-10	NOTE 1 & 3	NOTE 1 & 3	NOTE 1

NOTES:
1. One per crewmember
2. Required overwater when not within autorotation distance of land.
3. As required.
4. May be used in lieu of LRU-1/P.
5. May be used in lieu of F-2B.

6.4.4. Complete disassembly of aircrew issued oxygen mask is required at least once every 120 days. AFTO Forms 334 or computer-generated product will be annotated to show the date of complete disassembly and cleaning.

6.4.5. When oxygen masks are temporarily issued or worn for a trial fitting, adjustment straps need not be cut, but will be folded under and taped or tacked IAW applicable T.O.s.

6.5. Aircraft Installed Quick-Don Oxygen Masks:

6.5.1. Account for masks by serial number or a locally assigned number.

6.5.2. Remove masks from the aircraft every 30 days and return to the ALS section for inspection. Annotate the AFTO Form 334 to show date of inspection.

6.5.3. Completely disassemble aircraft installed oxygen masks each 90 days. Annotate the AFTO Form 334 to show the date of disassembly and cleaning.

6.5.4. Dust covers will be installed on pre-positioned oxygen masks.

6.6. Passenger Oxygen Masks. ALS is responsible for the maintenance and inspection of all passenger oxygen masks that are not contractor supported. Inspect passenger oxygen masks during each aircraft isochronal inspection, but will not exceed requirements in technical orders. Remove masks used as a result of decompression or airsickness for inspection and cleaning.

6.7. Passenger Oxygen Kits (POK)/Emergency Passenger Oxygen System (EPOS). Preposition POKs or EPOS on C-130 aircraft for use on passenger missions at FL250 and above. There must be one POK or EPOS on board for each passenger (see Table 6.1).

6.7.1. Assemble POKs using emergency oxygen cylinders P/N 8346205 (without red caution tag), AFSOC VA 50-1, and a type 289-601AF8 tapered passenger oxygen mask, NSN 1660-00-382-9434, then install in a cloth container. This is the only type mask authorized in the POK. Locally manufacture the POK container IAW T.O. 15X5-2-4-1.

6.7.2. POKs or EPOS will be stored, issued, and pre-positioned on unit aircraft in footlockers, NSN 8460-00-243-3234, or equivalent. Each container will be numbered for control/inspection purposes with the weight stenciled on the container in one-inch letters. Containers may be modified with locally manufactured handles to facilitate carrying. Stencil containers with one-inch letters on the top, front, and rear with the following instructions:

WARNING; THIS CONTAINER IS TO BE USED FOR PASSENGER OXYGEN KITS ONLY. NO OTHER ITEMS WILL BE PLACED IN THIS CONTAINER.

6.7.3. Inspect POKs/EPOS pre-positioned on aircraft after each deployment. Oxygen masks installed on aircraft will be inspected on isochronical inspection interval to coincide with aircraft inspection. Oxygen masks utilized in a non-fixed environment (stored in supply, and used with portable oxygen cylinders), will be inspected on an interval not to exceed 90 days. Inspect kits stored in ALS every 180 days. Do not place POKs/EPOS in serviceable storage. Use an AFTO Form 334 to record oxygen mask type, kit number, periodic inspection data, and quantity of POKs/EPOS in each kit. Affix a DD Form 1574, **Equipment Serviceability Condition Tag,** and maintain only one AFTO Form 334 for each POK/EPOS footlocker. Lockers should be sealed to discourage tampering.

6.7.4. Since the C-130 flight deck can accommodate more crewmembers than there are oxygen outlets, all AFSOC C-130 aircraft will have, as a minimum, three POKs/EPOS permanently pre-positioned on the aircraft. Serviceable Emergency Escape Breathing Devices (EEBD) may be used in lieu of either POKs or EPOS, but units should not mix configurations on the same aircraft.

6.7.5. Units located in arctic regions need not preposition POKs/EPOS, however, inspect POKs/EPOS prior to installation on aircraft.

6.8. PreBreather Oxygen Assembly. Environmental control system shops perform field repair, servicing, and maintenance IAW T.O. 15X2-6-11.

6.9. Aircew Helmets:

6.9.1. Fixed wing crewmembers will possess a flight helmet for use in event of emergency bailout. Loadmasters, Illuminator Operators and Gunners will possess a helmet equipped with a boom microphone. All helicopter crewmembers will possess a flight helmet.

6.9.2. Unless required for the mission, individual helmets and masks are not required on board aircraft with quick-don masks. Helmets and masks will be retained for contingency operations and be in the possession of fixed wing aircrews on deployments.

6.9.3. Life support will inspect and repair all helmets and oxygen masks. Inspect helmets with oxygen masks attached every 30 days. Inspect helmets without oxygen masks every 90 days. Crewmembers are responsible for helmet/mask preflight. Crewmembers will return their helmet and mask to a designated area for ALS postflight inspection. Accomplish a complete disassembly inspection on individually fitted masks every 120 days.

6.9.4. All HGU-55/P helmets will remain gray in color, which is considered camouflaged/subdued and if required, use the dual visor assembly or the set of snap on visors (clear and dark).

6.9.5. Rotary wing aircrews will wear the SPH-4AF helmet.

6.10. Smoke Masks. Ensure only crewmembers are authorized to use fire fighters' smoke masks as an emergency oxygen/communication source. Co-located masks and walk around bottles will be attached at all times.

6.10.1. Complete breakdown and inspection of fire fighters' smoke masks will be accomplished IAW technical guidance. Use AFTO Form 334 to record mask serial number and periodic inspections. Attach a DD Form 1574 to each mask and indicate inspection due date.

6.10.2. Store all masks in appropriate container (53D3972) when pre-positioned on board unit aircraft. Remove drawstrings from all containers and modify smoke mask bags IAW T.O. 15X5-5-3-1. All aircraft installed smoke masks will have rubber type adjustment straps.

6.11. Life Rafts. Place sufficient quantities of life rafts on board each aircraft to accommodate all personnel. Units will not allow aircraft with three or more engines to depart home station without the minimum number of life rafts, (ref. Table 6.1/6.2). Only local training missions, not conducted over water, are exempt. Units with aircraft that have two or less engines will ensure life rafts are on board for all overwater missions. Inspect and maintain rafts IAW T.O. 14S-1-102.

6.11.1. Helicopters may conduct overwater training without a life raft, provided each crew member and passenger is wearing a life preserver and safety is provided by motor powered boat or hoist equipped aircraft.

6.11.2. Aircraft depot/ferry over water flights will require a life raft or enough individual survival kits with life rafts on board to accommodate all personnel. When multi-person life rafts or individual survival kits are not required an aircraft minimum survival kit will be on board the aircraft.

6.11.3. Use ALSMS or AFTO Form 337, **Life Raft Container Inspection Record**, to record inspections of multi-person life rafts.

6.11.4. Record inspections for life rafts packed in individual survival kits on AFTO Form 338, **Survival Kit Record.** Annotate the AFTO Form 338 to indicate when the last functional inspection was accomplished.

6.11.5. Ensure a DD Form 1574 is attached to each aircraft life raft actuating handle. Ensure munitions lot numbers and dates of installation are annotated on backside of AFTO Form 1574.

6.11.6. Fixed wing units will maintain a spare set of 20 person life rafts, with bins.

6.12. Life Preservers. Aircraft will not fly over water unless an approved emergency flotation device is aboard the aircraft for each person and the device is within reach of each seated occupant.

6.12.1. Use this regulation to determine the types of life preservers authorized for use as depicted in Table 6.1. Aircrew members may use passenger type life preservers when parachutes are not required. Use either the LPU-10/P or LPU-2/P aircrew life preserver when parachutes are required.

6.12.2. Authorizations for Adult Child (A/C) preservers are depicted in Table 6.1/6.2 and will not duplicate authorizations for other type preservers.

6.12.3. To expedite donning during an emergency, life preservers will be packed with all straps in the unfastened position except the LPU-10/P or LPU-2/P, which will be folded and secured by fastening the chest strap or using a rubber band.

6.12.4. When life preservers are packed in A-3 bags, seal the bag and attach a completed DD Form 1574.

NOTE: Seals used on bags containing emergency life saving equipment will detach without the use of tools. Seals are used to detect tampering and not impede access to equipment.

6.13. **Survival/Accessory Kits/Vests:**

6.13.1. Units will maintain as a minimum the number of survival/accessory kits/vests required to meet mission requirements. Units must ensure all aircrew survival kits/vests and life raft accessory

kits contain the mandatory components listed in T.O. 14S1-3-51 and T.O. 14S-1-102. Optional equipment shortages will not render survival kits/vests unserviceable. Item shortages and quantity must be listed on DD Form 1574 (when used) and reflected on applicable AFTO Forms.

6.13.2. When a supplementary survival kit is required, the ML-4 individual survival container will be used. The container will be packed with mandatory and selected optional items listed in T.O. 14S1-3-51 and should not duplicate the optional components packed in the SRU-21/P/SARVIP survival vest if both are carried. Units may locally determine whether to carry the survival kit or survival vest depending on mission profile, environment, or other risk factors.

6.13.3. Special Operations Arctic Survival Kits: Mission commanders will ensure the appropriate global survival kit or winterized ML-4 or ML-3 kits are on board arctic/Antarctic flights. The unit commander determines optional components within these kits.

6.13.4. Maintain MA-1/MA-2 Sea Rescue Kits and attached IAW T.O. 14S1-102.

6.14. Parachute Spacer Kit:

6.14.1. AC-130 gunners/loaders may use the parachute spacer kit, which contains a minimum number of survival components. If a parachute is not worn through all phases of flight, crewmembers must wear the SRU-21/P survival vest to ensure they have access to sufficient survival and rescue components.

6.14.2. Parachute spacer kits will be constructed IAW the applicable technical order. Minor deviations are authorized as long as the original intent or basic design is not compromised.

6.15. Aircraft Minimum Survival Kit/Depot Survival Kit. Aircraft not configured with multiperson life rafts or individual survival kits will carry an aircraft minimum survival kit. Pack this kit IAW Table 6.3.

6.16. Protective Clothing Kit (PCK):

6.16.1. Primary mission airlift aircraft will have PCKs installed and configure IAW Table 6.4. Position the kits on the aircraft as specified in configuration directives.

6.16.2. PCKs contain protective clothing for use by aircrews during emergencies on board aircraft carrying dangerous cargo, as outlined in AFJMAN 24-204, *Preparing Hazardous Material For Military Air Shipment*, (formerly, AFR 71-4). Neutralizers for corrosive agents are not a part of the kit. Aircraft installed smoke masks may be used to meet AFJMAN 24-204 requirements. For the movement of Class A poisons, biological or other biological agents, the shipper will provide the protective equipment required for crew members.

Table 6.3. Aircraft Minimum Survival Kit/ * Depot Survival Kit Contents

QUANTITY	NOMENCLATURE
1 EACH	RADIO, PRC-90/112
1 EACH	MIRROR, SIGNAL
1 EACH	LIGHT, MARKER DISTREE, SDU-5/E
1 EACH	WHISTLE, PLASTIC
1 EACH	FIRST AID KIT
2 EACH	CONTAINER, WATER 5 QT.
1 EACH	COMPASS, LANSATIC
1 EACH	AFP 64-5, SURVIVAL MANUAL
3 EACH	* SIGNAL FLARE, MK-13/MK-24
1 EACH	* KIT PERSONNEL DISTRESS, A/P25S-5A
1 EACH	* KNIFE, POCKET OR LEATHERMAN TOOL
2 EACH	* CONTAINER, MATCH W/MATCHES

NOTE:* When the minimum survival kit is carried on commercial airlines, these items will be removed and the nomenclature of the kit will be "Depot Survival Kit".

Table 6.4. Protective Clothing Kit (PCK) Components

NOMENCLATURE	NSN	QUANTITY
Apron, Clear Vinyl	8415-00-715-0450	2 EA
Gloves, Rubber	8415-00-266-8675	2 PR
Gloves, Aramid	8415-01-092-3910	1 PR
Shears, Metal Cutting	5110-00-293-0089	1 EA
Vermiculite	5640-00-801-4176	5 LBS
Plastic Bags	8105-00-848-9631	3 EA
Tape, Masking 1"	7510-00-266-6712	1 RL
Dustpan, Rubber	7920-00-616-0109	1 EA
Whisk Broom, 10"	7920-00-240-6350	1 EA

6.17 Survival Vests:

6.17.1. Maintain a sufficient quantity of survival vests to support contingency/mobility commitments. The inspection, accessory attachment, maintenance and repair of vests and components will be as indicated in T.O. 14S1-3-51, Section 8. To prevent pilferage and theft, do not preposition survival vests on unsecured aircraft. Units must ensure all survival vests contain the mandatory components listed in T.O. 14S1-3-51. Other equipment shortages will not render the vest unserviceable. Annotate vest inspection on AFTO Form 406, **Mesh Net Survival Vest Inspection Record.**

6.17.2. Equip all AFSOC helicopter aircrew members with an individually fitted SARVIP or other AFSOC/DOTL approved survival vest. Wear vest with leg straps fastened throughout all phases of flight. Use installed elastic keepers to store excess chest and leg strap webbing; do not tape.

6.17.2.1. Units will requisition, modify and maintain sufficient survival vest equipment to meet all rotary wing mission requirements according to the required number of crew positions.

6.17.2.2. Units will ensure additional crewmembers required in support of missions are equipped with survival vests.

6.17.2.3. Rotary wing crewmembers will have Helicopter Emergency Egress Device (HEED) installed on their survival vest.

6.17.3. Units having survival vests that are pre-positioned aboard aircraft will ensure that tariff sizing of vests permits crew members to individually fit vests to meet both seasonal clothing and combat clothing (body armor) requirements.

6.17.4. Survival vest configurations must be standardized within each squadron as much as possible. Configurations may vary due to crew position.

6.17.5. Group supplements to this instruction will address placement of components in unit survival vests.

6.18. Anti-Exposure Coveralls:

6.18.1. Fixed Wing: Ensure Anti-Exposure suits will be readily available during overwater flights when route of flight is beyond power off gliding distance from land and the water temperature is 60 degrees Fahrenheit (F) or below.

6.18.2. Rotary Wing: Will wear constant wear exposure suits on any preplanned overwater flight which is beyond auto rotational distance from land and the water temperature is 60 degrees F or less. If the water temperature ranges between 51 degrees F and 60 degrees F, the unit commander/mission commander may waive or extend the anti-exposure suit requirement after conducting a risk assessment considering the following factors:

6.18.2.1. Climate zone and existing weather along flight path.

6.18.2.2. Operational requirements.

6.18.2.3. Number and type of aircraft in formation.

6.18.2.4. Time of flight over water.

6.18.2.5. Risk based on aircraft load and mission configuration.

6.18.2.6. Location, availability, and capability of search and rescue forces (consider estimated time in the water prior to recovery).

6.18.2.7. Winds, wave height and their impact on SAR.

6.18.2.8. Altitude and distance from land.

6.18.3. Exposure suits are not required when only the approach or departure is flown over water.

6.19. Emergency Radios:

6.19.1. The PRC-90 Series radio is the primary electronic signaling device authorized for AFSOC life raft accessory kits and survival kits/vests. Pack one spare battery for each radio. Survival radios will have volume control turned to the lowest setting. The PRC-112 Radio will be installed in the survival vest only (PSK for some crew positions in lieu of survival vest, as defined in local OIs).

6.19.2. PRC-112 radios must have tape with pull-tab placed on the on/off switch. (This action is not necessary on the reworked radio)

6.19.3. Inspect PRC-112 radios using the system ground check procedures outlined in technical manual 31R2-2PRC-112-1 or the TS 4317-3 with the J-1603 appliqué. Perform this check every 120 days.

6.19.4. Use T.O. 31R2-2PRC112-1 to program and load the PRC-112 radio.

6.19.5. Units should use extra caution when handling Lithium/sulfur batteries and adhere to all technical manual warnings.

6.20. Aircrew Restraint Harness and Safety Strap, Gunners' Safety Belt (MB-1). The PCU-17/P restraint harness and HBU-6/P safety strap are the only type restraint device authorized for aircrew use on AFSOC aircraft.

NOTE: Aircrew restraint harness will not be used by ground support personnel to perform aircraft maintenance tasks.

6.20.1. Inspect all PCU-17/P restraint harnesses and HBU-6/P safety straps by ALS IAW T.O. 13A1-1-1. Document inspection on AFTO Form 391, **Parachute Log**, and/or AFTO Form 392, **Parachute Repack, Inspection and Component Record.**

6.20.2. Equip all PCU-17/P restraint harnesses with a connector mounting plate NSN 1660-00-656-2522, for oxygen mask and CBO mask connectors.

6.20.3. Modify PCU-17/P restraint harnesses IAW T.O.13A1-1-1. The modification provides a pocket for stowing the loose restraint line and a sleeve to store the restraint line snap hook for easy access.

6.21. Parachutes. Maintain a sufficient quantity of parachutes to meet minimum requirements. Provide parachutes as prescribed by applicable configuration regulations, mission needs, and Table 6-1. Each crewmember supplied with a parachute must also have a helmet and oxygen mask for

emergency bailout. Equip parachutes aboard special operations aircraft with a PCU-10/P, personnel lowering device (PLD).

6.21.1. Equip all backstyle parachutes with an automatic release. Install a connector mounting plate, NSN 1660-00-656-2522, on all backstyle parachutes equipped with emergency oxygen cylinders.

6.21.2. Emergency oxygen cylinders, personal locator beacons, and SRU-16/P minimum survival kits are not mandatory components of AFSOC parachutes. However, they should be considered as additional enhancements to current LSE.

NOTE: Units with a high altitude low opening (HALO) mission will maintain a sufficient number of BA-22 parachutes with emergency oxygen cylinders installed. Unit commanders will determine this quantity based on number of HALO missions and aircraft, quantity and size of force, and other factors and the superintendent will identify this quantity in the group supplement to this instruction. Enough parachutes with oxygen cylinders must be pre-positioned on C-130 aircraft for the entire crew complement when required for HALO missions.

6.21.3. Aircrew personnel will accomplish preflight inspections and fitting of pre-positioned parachutes.

6.22. Night Vision Goggles (NVG). ALS or user will perform cleaning and operational checks.

6.22.1. Install NVGs on aircrew members helmets IAW current directives.

6.22.2. ALS will store NVGs in a secure area when not in use by aircrew members.

6.22.3. Issue NVGs to aircrew members using an AF Form 1297, **Temporary Issue Receipt** or a locally produced form. Establish local control procedures for safeguarding NVGs. Aircrews will document preflight inspection using a locally developed log and include date/time, resolution/acquity numbers, and signature.

6.22.4. Life support will perform organizational level NVG maintenance IAW applicable technical data. When avionics sensor system specialist, AFSC 281X1, are not available, life support personnel will perform intermediate level maintenance.

6.22.5. The helmet mounts listed in T.O. 12S10-2AVS6-21, and TM-4949-23&P are the only mounts authorized on the HGU-55/P. Slim-line battery packs may be attached using a strip of 4” x velcro IAW technical order guidance.

6.22.6. Use extreme care when handling lithium batteries. Report battery mishaps, to include venting, to appropriate safety agencies and HQ AFSOC/DOTL as soon as possible. Units should adhere to warnings in the Battery Disposition/Disposal handbook. The handbook is available through US Army HQ Communications Electronics Command (CECOM) safety office, Fort Monmouth NJ.

6.22.7. Units using lithium batteries will have a Class-D fire extinguisher on hand. Use local procurement procedures to obtain Class-D extinguisher.

6.22.8. Establish and maintain a night vision device test lane or the ANV-20/20 Infinity Focus System. Use procedures developed by Armstrong Laboratories to set up the test lane. Life support will be available to assist crewmembers with test lane use and fitting difficulties. Ensure sufficient eyelane equipment is available to support mobility commitments.

6.22.9. Life support will not be responsible for inspecting, maintaining, or storing NVG's other than those for aircrew use. Annotate inspection on AFTO Form 244, **Industrial/Support Equipment Record** or equivalent.

6.23. Aircrew Chemical Defense Equipment (ACDE).

6.23.1. Aircrew Requirements. All crewmembers (including staff personnel assigned to flying duties) in or deployable to chemical threat area will be fitted with ACDE. ACDE authorizations are specified in AFI 32-4001, *Disaster Preparedness Planning and Operations*, and TA 016C. As a minimum, each individual will be issued one ensemble. Prepare and store individual's equipment in a deployment bag (D-bag) for rapid deployment contingencies. (Ref. Table 6.5)

6.23.2. Life support responsibilities. Life support is responsible for requisitioning, fitting, and maintaining ACDE.

6.23.2.1. Record individual ACDE component sizes on AFSOC Form 86, **Aircrew Chemical Defense Ensemble Size Card and ACDE donning Checklist.** Issue one checklist for each BOI.

6.23.2.2. Perform periodic inspections on ACDE as required by appropriate T.O.s.

6.23.2.3. Record ACDE inspections on AFTO Form 152, **Chemical Defense Ensemble Inspection Record.** Pressure sensitive tape may be used to record inspection dates on filter packs, CBO masks, and blower assemblies.

6.23.2.4. Base supply may courtesy-store ACDE not required for life support use or aircrew training. Life support will assume storage responsibility for ACDE if sufficient storage space is available in or near work area.

6.23.3. ACDE Procedures. ACDE is designed for protection when traveling to, from, and during flying operations only and does not provide sufficient protection when performing ground support duties.

6.23.3.1. Filter Element Replacement Procedures. To allow rapid launching of initial deploying aircrews, some filter packs may be built-up with filter elements installed. Disassemble and inspect built-up filter packs annually (as T.O. directed, temperature, or conditions dictate) and have the filter elements changed according to T.O. 14P4-1-151.

6.23.3.2. Close coordination should be maintained between life support and the flying unit in order to ensure ACDE is prepared for issue or deployments.

6.23.3.3. Unit procedures may be established to have sufficient filter packs built up (with filters installed) to accommodate the initial cadre of deploying aircrews. Disassemble and place remaining filter packs in sealed bags ready for immediate installation of filter elements. If this option is chosen, procedures, personnel and tools must be available for mass filter element installation.

6.23.3.4. Crew members should use their individually issued or fitted "above the shoulder" ACDE for group exercises and flying-type training. Operational ensembles will not be used for such training resulting in damage to war readiness assets (e.g. water survival training, etc.). Crewmembers will turn-in ACDE to life support immediately after the threat or exercise is terminated.

6.23.3.5. Units are authorized to locally manufacture "simulated" ACDE hoods for ground training purposes by using the HGU-41/P hood as a template. Ensure hoods are marked "FOR TRAINING ONLY", and not stored with operational ACDE assets.

Table 6.5. Minimum Operational/Training ACDE Authorization

ITEM	OPERATIONAL (D-Bags)	TRAINING [1]
MBU-19/P Breathing System	1	-
Pack, Filter	1	12
Filters, C2A1/M13A2	8	12
Undercoveralls/CWU-66/P	3	12
Undershirt/Underdrawers	3	12
Butyl Glove W/Inserts	3	12
Capes	As Required	As Required
Foot Covers	As Required	As Required
Tube Socks	As Required	As Required
Hood, Protective, HGU-41/P	4	12

NOTE: Training equipment quantities should reflect actual crew size; some aircraft may have more than 12 crew positions.

6.23.4. Aircrew eye respiratory protection (AERP) equipment:

6.23.4.1. AERP equipment is designed to protect the aircrew member from toxic chemical exposure to the head, neck, face, eyes, and respiratory tract. The equipment is designed to provide protection without imposing operational or physiological burdens, degrading mission capability, or combat effectiveness. AERP equipment consists of a hood assembly which integrates an MBU-12/P pressure-demand 02 mask, hood 02 regulator, a chemical-biological filter, and pigtail adapter hose assembly, blower assembly and a ground intercommunication unit (IU).

6.23.4.2. One AREP system is comprised of one MBU-19/P protective integrated hood-mask (PIHM), one CQU-7/P blower assembly, and one MXU-835/P intercom unit. The MBU-19/P PIHM is designed to interface with the HGU-55/P and SPH-4/AF flight helmets. Use standard offset bayonet connectors for HGU-55/P and the Gentex® adapter kit for SPH-4/AF. Units requiring non-helmeted MBU-19/P's will have to order a separate harness assembly, four male and female buckle assemblies, and a communications cord to retrofit the hood-mask assembly as a non-helmeted version. Maintenance instructions and illustrated parts breakdown are in T.O. 14P3-1-151.

6.23.5. CWU-66/P or 77/P Integrated Aircrew Chemical Coveralls (IACC):

6.23.5.1. IACCs are preferred replacements for the MK-1 charcoal undercoverall. The only difference between the IACC's is color (66/P is green and the 77/P is desert brown). AFSOC aircrews will be authorized a total of three operational suits. It is AFSOC's goal to issue suits equitably across the command, as they become available. Individuals should not be issued subsequent suits until all aircrews have at least one IACC suit. Using this principle, all excesses should be reported to AFSOC in order to maintain readiness capabilities command wide. Issue MK-1 undercoveralls as the alternate coverall to make up a complete ensemble.

6.23.5.2. For training purposes, the standard CWU-27/P flight suit adequately replicates the CWU-66/P, 77/P suits. Therefore, IACCs should not be removed from the sealed container for training purposes. However, as long as individuals are equipped with both types of suits (IACC and MK-1 charcoal undercoverall), shelter-processing training should include both IACC and charcoal undercoverall.

6.24. **Vacuum-Packing LSE.** Vacuum-packaging LSE is authorized. The goal of vacuum packaging is to enhance an item's service life for stored items, or to reduce bulk of clothing type items. Vacuum-packaged equipment may be requisitioned according to TA 006 or 258.

6.24.1. Clothing type items may be vacuum packaged indefinitely unless signs of discoloration, deterioration, or broken seals are evident. All vacuum packaged items, other than clothing, will be opened and inspected at least every 24 months.

6.24.2. Vacuum packaging is not authorized for components that would inhibit compliance with inspection criteria, aircrew safety, and accessibility for emergency use. Therefore, items unauthorized to be vacuum-packed are survival kit and vest installed signal flares, radios, strobe lights, matches, tourniquet, and lensatic or magnetic compasses.

6.24.3. All vacuum-packaged items will be installed in a see-through container and clearly labeled with the package contents. Seal items that would be used in survival scenarios in such a way that the package can be opened with a single gloved hand and mark the package "OPEN HERE" and an arrow pointing to the notched or tear strip (or equivalent). For future tracking and research purposes, number packed items by lot sets of 100 (e.g. 1-1 through 1-100, 2-1 through 2-100, etc.). Label all vacuum-packed containers with lot number, date of installation, any applicable manufacturing data and initials of individual performing the packaging procedure.

6.24.4. Units desiring to use vacuum packaging will outline specific details in a supplement to this instruction. Additionally, as a source for future higher headquarters' reference, maintain a logbook for recording any and all anomalies of vacuum-packed items.

6.25. Equipment for Ferry Flights. The following procedures apply for aircrew personnel engaged in aircraft ferry flights:

6.25.1. Aircrew life support will issue quick-don oxygen masks, fire fighters smoke masks, restraint harnesses, and minimum or depot survival kit, as required. Smoke masks and restraint harnesses must remain with the aircraft while in depot to conduct functional check flights (FCF). Issue life support equipment to the aircrew on an AF Form 1297. Aircrew personnel will return the equipment to ALS upon return to home station.

6.25.1.1. Use minimum survival kits on aircraft ferry flights if the aircraft will not transit water and is not configured with multi-person life rafts or individual survival kits.

6.25.1.2. Use depot survival kits on aircraft ferry flights if the aircrew travels on commercial airlines to or from destination.

6.25.2. Aircraft input from overseas locations will have the minimum quantities of flotation equipment required to support all personnel. The equipment will remain at the depot facility during aircraft maintenance. Aircraft input from CONUS locations will have all life rafts removed prior to departure from home station. This equipment may be placed in serviceable storage IAW this regulation.

6.26. DD Form 1574, Serviceable Tag Material. Annotate the reverse side of the DD Form 1574 attached to all survival kits and multi-person life rafts to reflect the lot numbers and expiration dates of all pyrotechnics.

6.26.1. Component shortages in a survival kit or accessory container that will not affect the operation of the primary end item (mandatory components), will be recorded on the reverse side of the attached DD Form 1574. Take immediate action to obtain replacement items and replace items on next available inspection.

Chapter 7

DEPLOYMENT AND CONTINGENCY REQUIREMENTS

7.1. General. This chapter establishes guidelines for life support personnel and equipment required to support AFSOC worldwide commitments.

7.2. Responsibilities:

7.2.1. Commanders will ensure compliance with this chapter and keep life support personnel abreast of the group's existing and forthcoming contingencies and commitments.

7.2.2. Group and squadron life support:

7.2.2.1. Develop and ensure theater specific aircrew life support training is conducted prior to and during deployments (if required).

7.2.2.2. Develop and provide standardized deployment and ACDE packages for unit commitments, to include bare based, self-sustaining operations.

7.2.2.3. Establish and implement life support programs based on operational plan commitments and changes.

7.2.2.4. Ensure life support technicians are qualified to process hazardous cargo in accordance with AFJMAN 24-204, if required.

7.2.2.5. Ensure life support technicians are qualified in the use of 9mm and M-16 weapons.

7.2.2.6. Ensure deploying LSE and accompanying inspection forms are sanitized.

7.2.2.7. Coordinate with appropriate group agencies (e.g. supply, survival equipment shop etc.) to ensure life support requirements are sustained during the contingency operation.

7.2.2.8. Identify items for bare base operations and maintenance to include ACCA shelter operations, tents, portable equipment racks, shuffle boxes, laptop computers, etc.

7.2.2.9. Identify equipment shortages that result in total mission impairment through the SORTS reporting process.

7.2.2.10. Group life support superintendents should become members of the exercise evaluation team to observe life support combat capability in accordance with the criteria listed in AFI 90-201, *The Inspection System.* As a minimum, equipment combat configuration, deployment procedures, weapons issues (if applicable), deployed site operations (facilities, equipment inspection and maintenance), aircrew chemical equipment donning, doffing, and redonning, aircrew ACCA processing, and equipment decontamination should be evaluated. Additionally, support agencies'

(e.g. survival equipment, hospital, supply, etc.) ability to sustain the group's life support program should be considered part of the observation process.

7.3. Deployment Operations:

7.3.1. All aircrews will have their individual LSE combat configured prior to the first employment mission.

7.3.2. Bins and boxes will be available for storage and deployment of LSE.

7.3.3. Units will maintain sufficient quantities of technical data, tools, equipment repair parts, and supplies to support surge-type operations under bare-base conditions for a minimum of 60 days without resupply. Sufficient test equipment should be available to meet deployment commitments and have current calibrations.

7.3.4. Spare equipment (e.g. survival kits, parachutes, and LPU's) will have a minimum of 90 days serviceability prior to deployment.

7.3.5. Accountable life support equipment designated for deployment must be properly coded (use code A) on the unit's CA/CRL.

7.3.6. Include portable or deployable equipment racks, work benches, storage bins, computers etc., in the contingency package. Facility considerations will include all life support equipment requirements.

7.3.7. Equipment stored for deployments will be inventoried and inspected at least once every 180 days. Use AFTO Form 338 or equivalent to document this inspection and affixed to each bin or box. Packing lists and diagrams will be completed for each bin or box.

7.3.8. Equipment and supplies designated for contingency commitments should be prepackaged to the maximum extent at all times. These assets should not be used as a source of supply for daily peacetime operations at home station.

7.4. Deployment of Inspection Records. Establish procedures to ensure a copy of deploying aircraft and aircrew life support equipment records accompany the AFTO Form 46 on deploying aircraft.

7.5. Aircrew Chemical Defense:

7.5.1. Establish procedures that will ensure deploying aircrews hand carry at least one complete ACDE in or through a chemical threat area (CTA). Theater commanders or HQ AFSOC/DOTL may require additional ACDE to be carried into the area of responsibility. If and when required, units will develop procedures to ship the balance of the ACDE assets to the deployed locations. Minimum operating requirements are established in Table 6.5.

7.5.2. Aircrews will be prepared to wear flight equipment according to the deployment threat conditions. These requirements should also be used during local exercises to assure unit mission effectiveness.

7.5.3. Deployable equipment and trained technicians will be available for life support and ACCA operations. AFSOC units may utilize CAPS (Chemical Air Processing Systems) or equivalent approved by AFSOC/DOTL for aircrew decontamination procedures and technicians will be thoroughly trained in its operation.

7.5.4. Should manning requirements and mission needs dictate, deployable augmentor's resources may be trained in shelter operations and ACCA processing. However, they will not be trained or assigned in a capacity requiring life support technical expertise (AFSC 1T1X1).

7.6. Life Support Manning:

7.6.1. HQ AFSOC/DOTL is the functional manager for life support manning. Life support superintendents and NCOIC's are responsible for UTC manning and unit mission contingency operation.

7.6.2. When wartime scenarios call for a UTC change, or when exercise or other peacetime support needs must be evaluated, the following factors should be considered in making associated manpower requirements determinations: Hours of operation, numbers of aircraft and aircrews, and types and numbers of equipment at the deployed location. To provide supervisory responsibility for deployed technicians, aircraft, and equipment, a 5-level (Staff sergeant or higher) life support technician will be deployed when five or more aircraft are tasked.

Chapter 8

AIRCREW LIFE SUPPORT CONTINUATION TRAINING

8.1. General. This chapter outlines responsibilities and requirements of AFSOC life support and survival continuation training program.

8.2. Responsibilities:

8.2.1. Commanders of AFSOC flying units will:

8.2.1.2. Ensure compliance with the provisions set forth in this chapter.

8.2.1.3. Restrict any crewmember from flying who does not demonstrate required proficiency or fails to maintain required currency.

8.2.2. The OSS LSO or life support superintendent, assisted by SERE instructors, serves as the focal point for the group life support and survival continuation program and is directly responsible for its effectiveness. The life superintendent will:

8.2.2.1. Coordinate and develop the wing aircrew life support training schedule.

8.2.2.2. Monitor aircrew life support training currency and identify training shortfalls and trends.

8.2.2.3. Coordinate and schedule instructor augmentation requirements when needed.

8.2.2.4. Provide for preparation and maintenance of life support training equipment and facilities.

8.2.2.5. Ensure crewmembers meet the minimum formal survival training requirements in accordance with AFI 36-2209, and the training requirements of this instruction.

8.2.2.6. Ensure accurate lesson plans are developed in accordance with AFM 36-2236, *Handbook for Air Force Instructors*.

8.2.2.7. Provide a realistic training environment for all life support and SERE training.

8.2.2.8. Ensure crewmembers designated to conduct ground egress training are current and qualified in the weapon system. The group LSO will conduct periodic evaluations to ensure quality of those instructing aircraft ground egress.

8.2.2.9. Ensure 1T0X1 SERE Training Instructors and 1T1X1 Life Support Instructors are certified annually to conduct SERE and life support training. Certification will be documented on AF Form 1098. Life support instructors assigned to the OSS training flight should periodically be assigned to the various shops within the operations group. This is intended to provide program continuity, prevent career stagnation, and maintain technical proficiency. SERE instructors will develop an internal continuation training program that will ensure they are qualified to instruct.

8.2.2.10. Identify wing crewmembers that have not attended formal survival training according to AFI 36-2209.

8.2.2.11. Ensure quality, accuracy, and safety of continuation training programs.

8.2.2.12. Ensure all crewmembers are briefed on changes to LSE or new equipment items prior to placing in service.

8.2.2.13. Ensure formal and local survival training is properly documented.

8.2.2.14. Review and certify life support continuation training lesson plans annually. Forward copies of lesson plans and changes or updates, on disc, to HQ AFSOC/DOTL.

8.2.3. Squadron will:

8.2.3.1. Provide feedback to ensure life support training program remains abreast of mission needs.

8.2.3.2. Monitor and ensure crew members' life support training currency.

8.2.3.3. Life support shops will provide qualified instructor augmentation when required by the OSS.

8.3. Training Method. Unit continuation training will include realistic "hands-on" training, maximum student participation, student demonstrated knowledge and proficiency, and training aids to enhance the learning objectives.

8.4. Currency. Table 8.1 outlines aircrew training requirements and frequencies. Personnel will not perform aircrew flying duties if the requirements of this instruction have not been satisfied.

8.4.1. Currency Definitions. Annual will be interpreted as 12 months, to the end of the month. Biennial will be interpreted as not to exceed 2 years, to the end of the month. Triennial will be interpreted as not to exceed 3 years. Some block training events are scheduled for efficiency on a cycle not to exceed 17 months.

8.4.2. Currency Application. Crewmembers who require training during any specific month may satisfactorily complete that training at any time during that month. Crewmembers will be scheduled as closely as possible to the required cycle. Individuals requiring training are not considered delinquent until the first day of the following month. Individuals who become delinquent while deployed must accomplish training upon return to home station, prior to their next flight.

8.5. Course Descriptions.

8.5.1. Local Area Survival. Conduct initial life support training prior to first flight at a new duty location. Local area training (LS01) should familiarize the crewmember with basic survival equipment, local climate, rescue capabilities and procedures, and requirements and services

provided by the life support section. This may include a tour of the life support section and applicable areas. All aspects of life support training should be covered to the extent necessary to fly locally. Life support superintendents will develop a local area lesson plan to address their specific unit and area needs.

8.5.2. Life Support Equipment Training (17 months). Brief or demonstrate the location, preflight, and use of all LSE carried aboard unit aircraft or issued to crewmembers. Ensure crewmembers are aware of their responsibilities for passenger equipment and safety briefings. Demonstrations will include "hands-on" aircrew participation to the maximum extent possible. This training (LS06) session may be conducted concurrently with egress training. See attachment 7 for an abbreviated training outline.

8.5.3. Night Vision Device Refresher (17 months). Refresher training (LS16) as a minimum will consist of common NVG hazards, MDS specific hazards, limitations and performing preflight adjustment procedures and focusing on an eye chart or the use of a Hoffman 20/20 tester. The use of a mock-up terrain display is encouraged for this training. Initial Night Vision Device Training (VV01) is structured to provide basic information about capabilities and limitations of night vision devices and physiology and human factors affecting their operational use.

8.5.4. Ground Egress Training (17 months). Provide egress training (LS08) to all crewmembers and conduct training on unit aircraft by a certified aircrew instructor. Training will include a thorough briefing and demonstration of aircrew and passenger life support equipment, primary and secondary air and ground egress exit points. Aircrews will perform a "hands-on" egress scenario to enforce the importance of aircrew coordination required for emergency situations. See attachment 8 for an abbreviated training outline.

NOTE: Egress with ACDE (LS05) must be completed at least once in the aircrew’s assigned MDS aircraft IAW AFI 11-301.

TABLE 8.1. Aircrew Training Requirements

Training Requirements and Frequencies	AFORMS Identifier
ONE TIME REQUIREMENTS:	
Local Area Survival [1]	LS01
Initial Night Vision Device Training	VV01
Hanging Harness Training with ACDE [3]	LS12
DOD High Risk Survival Training (Level B/Level C)	LS14/LS15
Egress W/ACDE	LS05
ANNUAL AND 17 MONTH REQUIREMENTS:	
Life Support Equipment Training	LS06
Night Vision Device Refresher	LS16
Ground Egress Training	LS08
Helicopter Emergency Egress (HEED) Training (Video or SWET) [2]	LS13
Aircrew Chemical Defense Training (ACDT)	LS04
Chemical Defense Task Qualification Training (CDTQT)	LS17
TRIENNIAL REQUIREMENTS:	
Hanging Harness Training (HHT)	LS10
Combat Survival Training (CST)	LS02
Water Survival Continuation Training (Local Training)	LS03

NOTE:
1. Local equipment and rescue procedures.
2. Underwater egress and HEED training is required for helicopter crewmembers only.
3. HHT is for aircraft utilizing parachutes and should be conducted concurrently with egress training when practical.

8.5.5. Aircrew Chemical Defense Training (ACDT) (17 months). This training (LS04) is designed to familiarize aircrews with ACDE equipment use and procedures outside the aircraft, and will consist of demonstration and performance of donning, doffing, buddy dressing procedures, and ACCA processing procedures by 10 percent of each class (minimum of two students). ACDT will be accomplished using guidance in applicable T.O.s. See attachment 10 for an abbreviated training outline.

NOTE: All initial training students will be required to process through the ACCA to demonstrate proficiency using the ACDE.

8.5.6. Chemical Defense Task Qualification Training (CDTQT) (Annual). The purpose of CDTQT (LS17) is to reinforce the crewmember's awareness of limitations and demonstrate physiological effects while wearing the aircrew chemical defense ensemble (ACDE) in the aircraft environment. The complications of heat exhaustion, fatigue, hyperventilation, limited dexterity and vision, and hampered communication can all be experienced during CDTQT. All aircrew members must complete ACDT prior to accomplishing CDTQT. Annual CDTQT will consist of crewmembers wearing ACDE during in-flight missions using the primary unit aircraft. Crewmembers will perform primary crew duties while wearing the ACDE. All profiles must be

a minimum of 1 hour and accomplished on training missions only. Reference appropriate MDS-specific training instructions for additional guidance.

8.5.7. Hanging Harness Training (Triennial). Conduct this training (LS10) in conjunction with CST (or any other training session specified by this instruction as deemed locally appropriate). Crewmembers will be briefed on parachuting principles, location, preflight, donning, bailout, control-and-descent, landing, and use of the PLD. Following parachute brief, each crewmember will experience hanging harness training. Group life support and/or SERE training will work closely with the local safety office to design and certify parachute training and hanging harness devices. When possible, training will be conducted by qualified parachutists. HHT with ACDE (LS12) is a one time requirement. See attachment 9 for an abbreviated training outline.

8.5.8. Combat Survival Training (CST, High Threat) (Triennial). CST (LS02) will consist of a Field Training Exercise (FTX) comprised of code of conduct, combat recovery, land navigation, personal protection, and signaling and communications. Accomplish an evasion scenario incorporating all aforementioned curriculum and "hands-on" use of LSE available in specific weapons systems. CST should be tailored to individual experience levels, local climatic conditions, and unit mission. When possible, units are encouraged to incorporate SOF ground personnel into CST. Newly assigned personnel who have not completed formal survival training (S-V80-A) will receive CST within 6 months of arrival on station. Individuals who have completed formal survival training will be scheduled for local CST as appropriate. Completion of S-V80-A (Combat Survival) or local CST will establish the baseline for recurring training. In the event of inclement weather, lack of suitable/safe training area, or during contingency operations, CST requirements may be satisfied in a classroom environment. However, all major areas of curriculum in attachment 6 must be addressed.

8.5.9. Water Survival Continuation Training (WSCT) (Triennial). WSCT (LS03) will consist of "hands-on" training for each crewmember with all weapon system specific flotation devices and components available during an overwater emergency. Conduct training in an open body of water or pool with precautions taken to ensure safety of crewmembers and instructors. The objective of this training is to emphasize survivor needs using water survival related equipment and procedures. Additionally, this training will include emphasis on the use of appropriate passenger support equipment, and cover areas in attachment 11.

8.5.10. Initial Helicopter Emergency Egress Device (HEED) Training. Required for all helicopter crewmembers. All AFSOC helicopter crew members will attend a one-time underwater egress training (UET) class S-V84-A, as specified in AFCAT 36-2223, *USAF Formal Schools*.

8.5.11. (HEED) Training (Annual). Required refresher (LS13) for all helicopter crewmembers, as a minimum, crewmembers will view UET (606040DF), and HEED (802514DF) videos. Units are encouraged to develop hands-on HEEDs training programs IAW the following guidelines:

8.5.11.1. Training will be conducted in a controlled environment (swimming pool), not to exceed four (4) feet in depth.

8.5.11.2. Utilize the Shallow Water Egress Trainer (SWET). Operate SWET with a minimum of one qualified instructor and two assistants. Instructor will monitor student progress at all times. Qualified instructors will have a thorough understanding of dive physiology and be a graduate of S-V84-A, Underwater Egress Training (UET).

8.5.12. DOD High Risk Training (One time). Peacetime Code of Conduct Training (LS14/LS15) is required for all AFSOC high risk operators (aircrew members, special tactics personnel, etc.). High risk is defined as a combination of those operators, because of the nature of their mission, tactics, and Area of Responsibility (AOR), that have a high risk of capture, due to access to sensitive information, plans, or programs, are susceptible to foreign government, terrorist, or enemy exploitation. The training is managed and conducted by the Joint Services SERE Agency (JSSA) as the DOD Executive Agent Action Office for SERE and Code of Conduct Training. Training is available as an exportable Level B course (generally one-day) for lower risk operators and as a Level C course (academics and practical application) specifically tailored to unit missions. Both levels of training include information in how to deal with peacetime governmental detention and hostage/terrorist survival. SERE Training Instructors, following JSSA indoctrination and training, have the necessary core skills to effectively run this advanced survival training program. Unit Liaison Officers (LNO) are responsible for identifying operators requiring training to JSSA. JSSA, in conjunction with JCS/J-3SOD and USSOCOM will determine risk and appropriate levels of training.

STEPHEN R. CONNELLY, Colonel, USAF
Director, Operations

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

The following lists of publications are required to effectively manage an Aircrew Life Support Program. LSO, supervisors, and technicians should possess a working knowledge of these documents. This list is not all-inclusive.

PUBLICATION	TITLE
AFIND17	Index, Air Force Occupational Safety and Health Standards.
AFPD 11-3	Life Support
AFI 11-206	General Flight Rules (Chapter 6, Life Support Systems)
AFI 11-301	Air Force Life Support Program
AFSOCI 11-402	Helicopter Aircrew Training
AFSOCI 11-403	C-130 Aircrew Training
AFI 21-103	Equipment Inventory, Status, and Utilization Reporting
AFI 21-112	Aircraft Egress and Escape Systems
AFI 23-111	Management of Government Property in Possession of the Air Force
AFI 25-201	Support Agreements Requirements
AFI 31-207	Arming and Use of Force By Air Force Personnel
AFI 31-209	The Air Force Resources Protection Program
AFI 32-2001	Fire Protection Operations and Prevention Program
AFI 36-2201	Developing, Conducting, and Managing Military Program (OJT)
AFI 36-2209	Code of Conduct Training
AFI 36-2217	Munitions Requirements for Aircrew Training
AFMAN 11-303	Aircrew Life Support (ALS) Combat Operations
AFMAN 23-110/AFPD 21-1	Standard Base Supply Customers Procedures (Vol 2, Part 13)
AFMAN 36-2105	Officer Classification
AFMAN 36-2108	Airman Classification
AFMAN 37-139	Records Disposition Schedule
AFJMAN 24-204	Preparing Hazardous Material for Military Air Shipment
AFR 64-4 (Vol I)	Survival Training
AFP 64-5	Aircrew Survival
AFP 64-15	Survival and Emergency Uses of the Parachute
AFI 90-201	The Inspection System
AFI 91-201	Explosive Safety Standards
AFI 91-202	The US Air Force Mishap Prevention Program
AFI 91-204	Safety Investigations and Reports
AFI 91-301	US Air Force Occupational Safety, Fire Prevention, and Health Program
AFI 91-302	Air Force Safety and Health (AFOSH) Standards
AS 016	Special Purpose Clothing and Personal Weapons
AS 450	Personal/Life Support Equipment Section
AS 660	Shop Radios

AFRESR 36-2807	AFRES Operations Awards
AFRC 67-7	Mobility Bag/Equipment Management for AFRC units.
JPUB 3-50	National Search and Rescue Manual (Vol 1 & 2)

LIST OF TECHNICAL ORDERS

The following list of Air Force technical orders pertain to inspection, maintenance, storage, and use of personal flying and survival equipment. Use of this list is for reference only and is not all-inclusive. Life support will maintain specific T.O.s for items authorized within the unit.

T.O. AND T.O. SERIES	EQUIPMENT CATEGORY
0-1-01	Numerical Index
0-1-02	General Technical Orders
0-1-11	Armament Equipment
0-1-12	Airborne Electronic Equipment
0-1-13	Aircraft Furnishings and Inflight Feeding Equipment, Cargo Loading Aerial Delivery
0-1-14	Deceleration Devices and Personal and Survival Equipment
0-1-15	Aircraft and Missile Temperature Control, Pressurizing, Air Conditioning Heating, Ice Eliminating, and Oxygen Equipment
0-1-31-4	Ground Radio Electronic Equipment General
0-1-33-1	Purpose Test Equipment Special
0-1-33-2	Inspection, Laboratory and Purpose Test Equipment (Aircraft, Aircraft Accessories, Automatic Flight Control Systems, Aircraft Engines)
0-1-33-3	Special Purpose Test Equipment (Armament, Automotive, Electrical, and Electronic)
0-1-40	Commercial Air Conditioning, Heating, Plumbing, Refrigeration, Ventilating, and Water Treatment Equipment
00-5-1	Air Force Technical Order System
00-5-2	T.O. Distribution System
00-5-15	Time Compliance T.O. System
00-20-5	Maintenance Documents
00-20-9	Forecasting Replacement Requirements
00-20-9-1	Forecasting Replacement Requirements
00-25-06-2-1	Work Unit Code Manual
00-25-213	Dry Batteries
00-25-241	Parachute Log and Record
00-35A-39	Medical Kits

00-35D-54	USAF Material Deficiency Reporting and Investigating
00-110N-3	Identification of Radioactive Material
00-110N-10	Lensatic Compass NSN 6605-00-846-7618YS
00-110N-15	Lensatic Compass NSN 6605-00-151-5337YS
11A-1-1	Conventional Munitions
11A-1-10	Munitions Serviceability
11A10-26-7	Pyrotechnic Signals
12S10 Series	Night Vision Goggles
13A1-1-1	Restraint Harness
14-1-1	Personal Type Flight Clothing
14D1-1-1	Styles of Parachutes
14D1-1-2	Cleaning of Parachutes
14D1-2-1	Personal Parachutes
14D2-8-1	Automatic Parachute Ripcord Release
14D3-11-1	Operation and Inspection of Parachutes
14P3-1-112	NOMEX Flight Gear
14P3-1-121	Custom Fitting Procedures for Flying Helmets
14P3-1-131	Aircrew Chemical Defense Ensemble
14P3-1-151	Aircrew Eye/Respiratory Protective Equipment
14P3-1-181	SPH-4A/F Helmet
14P3-4-151	HGU-55/P Flyers Helmet
14P3-5-61	CWU-16/P Anti-Exposure Suit
14P3-5-81	CWU-21/P Anti-Exposure Suit
14P3-5-91	CWU-74/P Anti-Exposure Coverall
14P3-9-12	Flashblindness Goggles
14P4-1-151	Chemical Canisters and Filter Elements
14S-1-102	Flotation Equipment
14S1-3-51	Survival Kits
14S1-4-22	MK-2 Desalter Kit
14S3-1-3	Types of Survival Kit Containers and Life Rafts
14S10-2-2	SDU-5/E Distress Marker Light
15X-1-1	Oxygen Equipment
15X1-4-2-4	MD-1, MD-2, CRU-10/P Emergency 02 Cylinders
15X1-4-2-12	Emergency 02 Cylinders
15X5-2-4-1	289-601 AF POK

15X5-3-6-1	MBU-12/P Oxygen Mask
15X5-4-1-101	Oxygen Mask Connector Assemblies
15X5-4-4-12	MBU-12/P Oxygen Mask
15X5-4-4-13	MBU-12/P Oxygen Mask with IPB
15X5-4-8-1	MBU-10/P Quick-Don Oxygen Mask
15X5-4-10-1	Quick-Don, Smoke Mask, EEBD with IPB
15X5-5-3-1	Fire Fighters Smoke Mask
15X6-4-3-1	Type MA-1 Portable Breathing 02 Assembly
31R2-1-251	False Distress Signal
31R2-2PR-101	PRC-90 Radio Set
31R2-2PRC90-1	PRC-90-1/-2 Radio Set
31R2-2PR-104	PRC-90 Radio Set with IPB
31R2-2PRC112-1	PRC-112 Operations, Unit, and Intermediate Maintenance
31R4-2URT33-2	URT-33 Radio Beacon Set
32B14-3-1-101	Torque Indicating Tools
33A1-12-1109-1	Test Set, Battery BT-2B
33D2-10-10-1	Tester, Oxygen Mask/Headset and Mike
33D2-10-10-11	Tester, Oxygen Mask, Headset and Microphone Type MQ-1
33D2-10-10-21	Tester, Oxygen Mask Headset and Microphone Type MQ-1
33D2-10-10-31	Tester, Oxygen Mask, Headset and Microphone Type MQ-1
33D2-10-10-41	Tester, Oxygen Mask, Headset and Flash Goggles Type MQ-1A, PN 1854
33D7-71-42-1	Radio Test Set Model ACR/TS-24/B
40W4-15-1	Manual Reverse Osmosis Demineralizers (MROD)(-6)
40W4-16-1	Manual Reverse Osmosis Demineralizers (MROD)(-15)
42B-1-22	Quality Control Compressed and Liquid Breathing Air

Attachment 2

LOW-LEVEL FLIGHT

INDEX OF THERMAL STRESS (ITS) CHART
Index of Thermal Stress in °F (Low-Level Flight, Clear Sky to Light Overcast)

Instructions: Enter with local dry bulb temperature and dewpoint temperature: at intersection read FITS value and zone. Applies only to lightweight flight clothing. See notes for zone explanation. The **X** denotes combination above saturation temperatures. *****When value is greater that 115, cancel all nonessential flights.

Dry Bulb Temp | Dewpoint Temperature (°F)

(°F)	Zone	≤ 30	40	50	60	70	80	90	100	110
70	Normal	70	73	76	81	86	X	X	X	X
75	Normal	74	77	80	84	89	X	X	X	X
80	Normal	77	80	83	87	92	98	X	X	X
85	Normal	81	83	86	90	95	101	X	X	X
90	Normal	84	87	90	93	98	104	110	X	X
95	Normal	88	90	93	96	101	108	112	X	X
100	Caution [1]	91	93	96	99	104	109	115	122*	X
105	Caution [1]	94	96	99	102	107	112	118*	124	X
110	Caution [1]	97	99	102	105	109	114	120*	126	133
115	Danger [2]	100	102	105	109	112	117*	123	129	136
120	Danger [2]	104	105	108	111	115	120*	125	131	138

NOTE: Caution Zone 1:

1.1. Be aware of heat stress.
1.2. Limit ground period (preflight and ground standby) to 90 min.
1.3. Minimum 2-hr recovery between flights.

Danger Zone 2:

2.1 Cancel low-level flights (below 3,000 ft. AGL).
2.2. Limit ground period to 45 min.
2.3. Minimum 2-hr recovery between flights.

NOTE: This table is not to be used when CD, immersion, or arctic flight equipment is worn. Observe the following general host-weather precautions:

1. Allow time for acclimatization to hot weather; avoid extreme efforts on the first several days of exposure.
2. Try to drink more water than thirst dictates; water intake is vital to sweat secretion, the body's main defense against heat.

Attachment 2 Con't

Chemical Defense

INDEX OF THERMAL STRESS (ITS) CHART
Index of Thermal Stress in °F as Amended for Chemical Defense (CD) Training (Clear Sky to Light

Instructions: Enter with local dry bulb temperature and dewpoint temperature: at intersection read FITS value zone. See notes for zone explanation. The X denotes combinations above saturation temperature.

Dry Bulb Temp		Dewpoint Temperature (°F)								
(°F)	Zone	≤ 30	40	50	60	70	80	90	100	110
70	Normal	70	73	76	81	86	X	X	X	X
75	Normal	74	77	80	84	89	X	X	X	X
80	Normal	77	80	83	87	92	98	X	X	X
85	Normal	81	83	86	90	95	101	X	X	X
90	Normal	84	87	90	93	98	104	110	X	X
95	Normal	88	90	93	96	101	108	112	X	X
100	Caution [1]	91	93	96	99	104	109	115	122	X
105	Caution [1]	94	96	99	102	107	112	118	124	X
110	Caution [1]	97	99	102	105	109	114	120	126	133
115	Danger [2]	100	102	105	109	112	117	123	129	136
120	Danger [2]	104	105	108	111	115	120	125	131	138

NOTE:
Caution Zone 1:
1.1. Be aware of heat stress
1.2. Limit ground period (preflight and ground standby) to 90 min or less.

Danger Zone 2:
2.1. Cancel low-level flights (below 3,000 ft. AGL)
2.2. Limit ground period to 45 min or less (above 3,000 ft. AGL)

Shaded Area:
When value is greater than 115, cancel all CD training flights.

NOTE:
1. This table is for wear of helmet, filter pack, and gloves only and is not used when full CD, immersion, or flight equipment is worn.
2. Because generalized fatigue may be accelerated by wearing the partial CD ensembles in long duration missions, total CD mission times (preflight plus flight time) should be limited to 2 hours for the rotary/fixed wing aircraft.

Attachment 3

WIND CHILL TEMPERATURES

Wind Speed		**Cooling Power of Wind Expressed As "Equivalent Chill**										
Knots	**MPH**	Temperature (Degree F)										
CALM	CALM	40	35	30	25	20	15	10	5	0	-5	-10
		EQUIVALENT CHILL TEMPERATURE										
3-6	5	35	30	25	20	15	10	5	0	-5	-10	-15
7-10	10	30	20	15	10	5	0	-10	-15	-20	-25	-25
11-15	15	25	15	10	0	-5	-10	-20	-25	-30	-40	-45
16-19	20	20	10	5	0	-10	-15	-25	-30	-35	-45	-50
20-23	25	15	10	0	-5	-15	-20	-30	-35	-45	-50	-60
24-28	30	10	5	0	-10	-20	-25	-30	-40	-50	-55	-65
29-32	35	10	5	-5	-10	-20	-30	-35	-40	-50	-60	-65
33-36	40	10	0	-5	-15	-20	-30	-35	-45	-55	-60	-70
WINDS ABOVE 40 HAVE LITTLE ADDITONAL EFFECT		LITTLE DANGER					INCREASING DANGER (FLESH MAY FREEZE WITHIN 1 MINUTE)					

Cooling Power of Wind Expressed As "Equivalent Chill Temperature"									
Temperature (Degree F)									
-15	-20	-25	-30	-35	-40	-45	-50	-55	-60
EQUIVALENT CHILL TEMPERATURE									
-20	-25	-30	-35	-40	-45	-50	-55	-65	-70
-40	-45	-50	-60	-65	-70	-75	-80	-90	-95
-50	-60	-65	-70	-80	-85	-90	-100	-105	-110
-60	-65	-75	-80	-85	-95	-100	-110	-115	-120
-65	-75	-80	-90	-95	-105	-110	-120	-125	-135
-70	-80	-85	-95	-100	-110	-115	-125	-130	-140
-75	-80	-90	-100	-105	-115	-120	-130	-135	-145
-75	-85	-95	-100	-110	-115	-125	-130	-140	-150
GREAT DANGER (FLESH MAY FREEZE WITHIN 30 SECONDS)									

Attachment 4

LRU-1/P LIFE RAFT ACCESSORY CONTAINER (7 PERSON)

NOUN	QUANTITY
* Accessory container	1 each
* Pump, hand, type I or II	1 each
# Adapter, pump	1 each
# Adapter, Distillation kit	1 each
* Repair kit, raft, w/pliers	1 each
* First aid kit	3 each
* Radio, PRC-90 w/spare battery	1 each
* Strobe light, SDU-5/E (w/IR filter and flashguard)	1 each
* Mirror, signal, type I or II	1 each
* Signal, distress, MK-13/MK-124	4 each
* Signal, distress, personnel AP-25S-5A	1 each
* Compass, lensatic or magnetic	1 each
# Desalter kit	2 each
Water, Flex pack	20 each
Knife, raft	1 each
Rations, GP	3 each
Bag, water storage, size A	3 each
Survival Manual, AFM 64-5	1 each
Sponge, bailing	2 each
Bucket, bailing	1 each
Kit, fishing	1 each
Sunscreen SPF 15 (minimum)	4 each
Lipstick, anti-chap	3 each
* Canopy/paulin	1 each
* Oars	2 each
Marker, sea dye	4 each
Cord, nylon (30 feet)	1 each
Knife, pocket (or leatherman tool)	1 each
Stone, sharpening	1 each
Plastic sheet, 6' X 6'	1 each
Whistle, police, plastic	1 each
Latex tubing, 6 feet	1 each
Manual reverse osmosis desaliniator -35	1 each

* Minimum mandatory equipment in accordance with the provisions of paragraph 6.13.4.
\# Items may be removed when the MROD-35 is installed in the accessory container.

Attachment 5

AIRCREW PROCEDURES FOR CHEMICAL OPERATIONS

(THESE PROCEDURES ARE INTENDED FOR USE WHILE PREPARING FOR FLIGHT AND IN-FLIGHT			
MOPP CONDITION	ON THE GROUND	IN AIRCRAFT (ON GROUND)	AIRBORNE
YELLOW (MOPP 0-4)	Don GCDE IAW MOPP ACDE – Hand-carried	Remove GCDE, on-board available ACDE – Hand-carried	Remove GCDE, on-board available ACDE on-board available
RED (MOPP 0-4)	Don GCDE IAW MOPP ACDE – Hand-carried	Don GCDE IAW MOPP, shut down engines, take cover, and/or follow directions from command post ACDE – Hand-carried	Do not land; query command post; don ACDE
BLACK (MOPP 0-4)	If in GCDE, proceed to aircrew life support area for processing into ACDE If in ACDE, proceed to aircraft	If in GCDE, proceed to aircrew life support area for processing into ACDE or follow directions from command post If in GCDE, continue mission or follow directions from command post	Don ACDE before landing

ASSUMPTIONS: Aircrews wear the flight suit (CWU-27/P) under the GCDE. The 66/P or 77/P can be worn under the GCDE, but you can get extremely hot. Proceed to a life support decon area if wearing the GCDE to process if the condition is black.

WARNING: The only mask you can quick don is the ground mask.

NOTE: This document is to be used as a guide. It cannot take into account every scenario or situation. At times, you may have to rely on common sense and/or judgment and your commander.

Attachment 6

COMBAT SURVIVAL TRAINING (CST) OUTLINE

A6.1. Objective: The primary purpose of Combat Survival Training (CST) program is to provide comprehensive Survival, Evasion, Resistance, and Escape academic training, as well as, a realistic field training scenario in which the aircrew member can practice evasion principles in a simulated combat environment. CST should be tailored to individual experience levels, local climate conditions, and overall unit missions. Instructor guides and unit operating instructions will be developed IAW command training outlines and directives.

A6.2. References:

A6.2.1. AFI 36-2209, AFM 64-2, AFR 64-3, AFR 64-4 (Volume I), AFP 64- 5, AFP 64-15, DOD Directive 1300.7, JPUB 3-50.2, JPUB 3-50.3

A6.2.2. TO 00-35A-39, 14S6-3-1.

A6.3. Training Aids:

A6.3.1. All applicable survival equipment for specific airframe.

A6.3.2. Signaling equipment.

A6.3.3. Recovery devices.

A6.3.4. Student safety equipment.

A6.3.5. Instructor equipment.

A6.3.6. Medical gear.

A6.4. Training Curriculum:

A6.4.1. Academics:

A6.4.1.1. Code of Conduct. Complete spectrum: to include; wartime, peacetime, and hostage guidance IAW DOD Directive 1300.7 and AFI 36-2209.

A6.4.1.2. Combat Recovery IAW JPUB 3-50.2 and JPUB 3-50.3. Conventional and unconventional methods.

A6.4.1.3. Evasion and Recovery Aids/Devices applicable to the aircrew members mission requirements.

A6.4.1.4. Land Navigation.

A6.4.1.5. Personal Protection. Stress global environment.

A6.4.1.6. Medical. Survival field and captivity medicine.

NOTE: All academic curriculum may be included into the FTX phase of CST providing all major subject areas are addressed**.**

A6.4.2. Field:

A6.4.2.1. Survival Equipment. Proper care of use of all issued equipment.

A6.4.2.2. Recovery. Hands-on with applicable recovery devices, site selection, procedures, survivor responsibilities, and safety.

A6.4.2.3. Evasion Firecraft. Combat considerations.

A6.4.2.4. Signaling. Hands-on with applicable signaling devices.

A6.4.2.5. Sustenance. Food/water procurement and preservation under evasion conditions.

A6.4.2.6. Local area hazards.

A6.4.2.7. Navigation. Hands-on with map, compass, all other issued equipment.

A6.4.2.8. Five Phases of Evasion.

A6.5. Required Demonstrations:

A6.5.1. Fire starting methods

A6.5.2. Proper use of recovery devices.

A6.5.3. Proper use of flares.

A6.5.4. Water and food procurement techniques.

A6.5.5. Evasion movement techniques.

A6.5.6. Proper use of navigational aids.

A6.6. Required Student Practices:

A6.6.1. Practice evasion in a simulated combat environment.

A6.6.2. Land navigation.

A6.6.3. Hands-on with applicable signaling equipment.

Attachment 7

AIRCREW LIFE SUPPORT (LS) CLOTHING AND EQUIPMENT TRAINING OUTLINE

A7.1. Objectives: Know the various items of aircrew clothing and equipment, their use, protection provided, the importance of proper care and fit, and the services provided by aircrew life support personnel.

A7.2.References:

A7.2.1. AFI 11-206.

A7.2.2. Applicable technical order for the clothing or equipment of instruction

A7.2.3. Applicable AFSOC, Group or Squadron directives.

A7.3. Training Aids:

A7.3.1. Flight Clothing:

A7.3.1.1. Nomex® gloves.

A7.3.1.2. Nomex® coveralls.

A7.3.1.3. Aircrew boots.

A7.3.1.4. Undergarments.

A7.3.1.5. Flight jacket.

A7.3.2. Flight Equipment (as applicable):

A7.3.2.1. Helmet, oxygen mask, and related test equipment

A7.3.2.2. Anti-exposure suit (if applicable)

A7.3.2.3. Aircrew Chemical Defense Equipment (ACDE)

A7.3.2.4. Survival vest/kits

A7.3.2.5. Life rafts

A7.3.2.6. Parachutes

A7.3.3. Preflight test equipment (as applicable):

A7.3.3.1. MQ-1 Tester

A7.3.3.2. ANV 20/20 Infinity Focus System

A7.4. Specific areas to be covered (as applicable):

A7.4.1. All aircrew clothing and ALSE assigned.

A7.4.2. Protection afforded by Nomex® coveralls, gloves, and boots.

A7.4.3. Donning and doffing procedures for related flight clothing.

A7.4.4. Use and function of ALSE installed onboard the aircraft.

A7.4.5. Aircrew life support equipment preflight inspection requirements and procedures.

A7.4.6. Services provided by aircrew life support.

Attachment 8

EGRESS/BAILOUT TRAINING OUTLINE

A8.1. Objective: Familiarize aircrews on egress procedures for aircraft not equipped with ejection systems. NOTE: Training will encompass location, use, donning, and/or deployment of life support equipment, egress procedures up to and including parachute deployment, ground egress, and/or ditching.

A8.2. References:

A8.2.1. TO 14D1-2-1, -2.

A8.2.2. TO 14D3-11-1.

A8.2.3. Applicable aircraft Dash-1.

A8.2.4. Applicable AFSOC, Group or Squadron regulations and directives.

A8.3. Training Aids:

A8.3.1. Parachute (if applicable).

A8.3.2. Helmet, oxygen mask, and walk-around bottle (if applicable).

A8.3.3. Survival vest.

A8.3.4. Aircraft.

A8.4. Specific Areas to be Covered:

A8.4.1. Location of aircrew life support equipment.

A8.4.1.1. Survival vests (components).

A8.4.1.2. Anti-exposure suits.

A8.4.1.2.1. Location.

A8.4.1.2.2. Don and adjust.

A8.4.1.3. LPU.

A8.4.1.3.1. Location.

A8.4.1.3.2. Don and adjust.

A8.4.1.4. Other available equipment.

A8.4.2. Parachute assemblies (if applicable).

A8.4.2.1. Location.

A8.4.2.2. Components.

A8.4.2.3. Preflight inspection.

A8.4.2.4. Don and adjust.

A8.4.2.5. Use (manual/automatic).

A8.4.3. Crew coordination.

A8.4.3.1. Order of bailout.

A8.4.3.2. Bailout signals.

A8.4.3.3. Individual aircrew responsibilities.

A8.4.4. Egress procedures.

A8.4.4.1. Aircraft exit.

A8.4.4.2. Body position--before and after aircraft exit.

A8.4.4.3. Parachute actuation--high/low altitude.

A8.4.5. Ground egress procedure.

A8.4.6. Ditching procedure.

A8.4.6.1. Crash body position.

A8.4.6.2. Life raft location (wing well deployed/manual).

A8.4.6.3. Slide operation.

A8.4.6.4. Organized egress.

Attachment 9

HANGING HARNESS TRAINING OUTLINE

A9.1. Objective: Using the necessary training aids and ring/hanging harness trainer, each aircrew member will perform post-egress procedures IAW technical order procedures. NOTE: Training will encompass procedures from the time of aircraft exit to ground contact and parachute release.

A9.2. References:

A9.2.1. TO 14D-2-1, -2.

A9.2.2. Applicable parachute assembly/egress T.O.s.

A9.3. Training Aids:

A9.3.1. Parachute harness.

A9.3.2. Suspended ring and harness trainer.

A9.3.3. Survival vest.

A9.3.4. Helmet.

A9.3.5. Oxygen mask.

A9.3.6. Gloves.

A9.3.7. LPUs.

A9.4. Specific Areas to be Covered:

A9.4.1. Post-bailout: (NOTE: Aircrew will perform post-egress techniques with chemical defense ensemble).

A9.4.2. Post-bailout checklist:

A9.4.2.1. Check canopy.

A9.4.2.1.1Malfunction (corrections).

A9.4.2.2. Visor (up).

A9.4.2.3. Mask (discard) (chem defense procedure, land/water).

A9.4.2.4. Deploy survival kit (manual).

A9.4.2.4.1. Manual.

A9.4.2.4.2. Activate ML-4 Kit.

A9.4.2.5. Deploy LPUs.

A9.4.2.6. Perform 4-line jettison.

A9.4.2.7. Prepare to land (200 feet).

A9.4.2.7.1. Turn into wind.

A9.4.2.7.2. Body position.

A94.3. Types of Landings.

A9.4.3.1. Land (open terrain, snow, rocky, mountain, etc.).

A9.4.3.2. Water.

A9.4.3.3. Night.

A9.4.3.4. High winds.

A9.4.3.5. Power line penetration.

A9.4.3.6. Tree landing.

A9.4.4. Use of Personnel Lowering Device (PLD).

A9.4.4.1. Capabilities.

A9.4.4.2. Limitations.

A9.4.4.3. Operation.

A9.4.5. Parachute Landing Falls (PLFs).

A9.4.5.1. Body position.

A9.4.5.2. Points of contact.

A9.4.5.3. Release.

A9.4.6. Parachute Drag.

A9.4.6.1. Front drag.

A9.4.6.2. Back drag.

Attachment 10

CHEMICAL DEFENSE (CD) EQUIPMENT FAMILIARIZATION TRAINING OUTLINE

A10.1. Objective: Don, doff, and re-don aircrew chemical defense ensembles for operational use IAW technical procedures.

A10.2. Reference: TO 14P3-1-131 and 14P3-1-151.

A10.3. Training Aids:

A10.3.1. HGU-55/P and SPH-4/AF flying helmet, as applicable.

A10.3.2. First generation chemical defense ensemble (if applicable):

A10.3.2.1. MBU-13/P CBO mask.

A10.3.2.2. HGU-41/P CBO hood.

A10.3.2.3. CRU-80/P filter pack Assy.

A10.3.2.4. Charcoal undergarment.

A10.3.2.5. White cotton underwear.

A10.3.2.6. Cotton gloves.

A10.3.2.7. Aircrew butyl gloves.

A10.3.2.8. Plastic footwear cover.

A10.3.2.9. Overcape.

A10.3.2.10. Suspension assembly (as required).

A10.3.3. Second generation chemical defense ensemble (if applicable):

A10.3.3.1. Aircrew Eye Respiratory Protection (AERP) System.

A10.3.3.2. CWU-66/P or -77/P, Improved Aircrew Chemical Coverall (IACC).

A10.4. Specific areas to be covered. Ensure each aircrew member can perform the following tasks:

A10.4.1. Explain critical features and operation of all ACDE items.

A10.4.2. Filter pack or MBU-19/P Filter manifold to torso harness attachment.

A10.4.3. Filter pack or MBU-19/P Filter manifold to aircraft oxygen/communication system attachment.

A10.4.4. Don, doff, and adjust CBO and/or MBU-19/P mask.

A10.4.5. Preflight CBO and/or MBU-19/P mask hood.

A10.4.6. Attach communications cord from CBO and/or MBU-19/P mask to helmet.

A10.4.7. Understands the capabilities and limitations of the chemical defense ensemble.

A10.4.8. Properly don all ACDE in a Toxic Free Area (TFA).

A10.4.9. Don/doff ACDE in CCA environment with assistance.

A10.4.10. Perform post-bailout parachute descent procedures in a water and land environment emphasizing NBC protection.

Attachment 11

WATER SURVIVAL CONTINUATION TRAINING OUTLINE

A11.1. Objectives: The primary purpose of Water Survival Continuation Training is to expose the aircrew member to the environmental factors and considerations in an open sea environment. Training should be tailored to the specific airframe and overall unit mission. Training should be accomplished in a realistic, but safe environment. Instructor guides and operating instructions will be accomplished IAW command training outlines and directives.

A11.2. References:

A11.2.1. TO 14P3 series, 14S-1-102, 14S1-3-51, 14S6-3-1, 14D1-2-1.

A11.2.2. AFI 11-206, AFM 64-2, AFR 64-4 (Volume 1), AFP 64-5.

A11.2.3. Applicable AFSOC, Group or Squadron regulations and directives.

A11.3. Training aids:

A11.3.1. Life preservers.

A11.3.2. Life raft with accessories.

A11.3.3. MA-1/2 rescue kit and items (if items are not available, utilize illustrations).

A11.3.4. Anti-exposure suits.

A11.3.5. Recovery devices.

A11.3.6. Aircrew chemical defense equipment.

A11.3.7. Parachute disentanglement trainer.

A11.3.8. Parachute harnesses.

A11.3.9. Helicopter Emergency Escape Device (HEED) (Helo only)

A11.4. Curriculum:

A11.4.1. Environmental Factors:

A11.4.1.1. Exposure.

A11.4.1.2. Personal protection.

A11.4.1.3. Medical (physiological and psychological).

A11.4.2. Hazardous Marine Life. Prevention and treatment.

A11.4.3. Sustenance. Food and water.

A11.4.4. Evasion Consideration.

A11.4.5. Signaling. Proper care and use.

A11.4.6. Recovery. Hands-on with applicable recovery devices and survivor responsibilities during helo and surface vessel recovery.

A11.4.7. Life Support Equipment. Applicable considerations for open water.

A11.4.7.1. Life raft. Care/use and boarding procedures.

A11.4.7.2. LPUs. Issued and improvised.

A11.4.8. Post Bailout Procedures.

A11.4.8.1. Standard.

A11.4.8.2. Low altitude.

A11.4.8.3. Chemical environment.

A11.5. Required Demonstrations:

A11.5.1. Donning of anti-exposure suit.

A11.5.2. Canopy disentanglement.

A11.5.3. Doffing chemical warfare ensemble.

A11.5.4. Raft boarding techniques.

A11.5.5. Mounting recovery devices.

A11.6. Required Student Practice:

A11.6.1. Canopy disentanglement.

A11.6.2. Raft boarding.

A11.6.3. Mounting recovery devices.